Table (matrix) number	Table (matrix)	Starting position	Starting position within segment	Table (matrix) coordinates
H15.	AGGREGRATE PERSONS(1) BY TENURE(2) [2]			
	Universe: Persons in occupied housing units with householder of Hispanic origin			
	Total:			
	Owner occupied	25921	2146	1,1
	Renter occupied	25930	2155	1,2
H16.	ROOMS(9) [9]			
	Universe: Housing units			
	1 room	25939	2164	1
	2 rooms	25948	2173	2
	3 rooms	25957	2182	3
	4 rooms	25966	2191	4
	5 rooms	25975	2200	5
	6 rooms	25984	2209	6
	7 rooms	25993	2218	7
	8 rooms	26002	2227	8
	9 or more rooms	26011	2236	9
H17.	AGGREGATE ROOMS(1) [1]			
	Universe: Housing units			
	Total	26020	2245	1
H18.	TENURE(2) BY PERSONS IN UNIT(7) [14]			
	Universe: Occupied housing units			
	Owner occupied:			
	1 person	26029	2254	1,1
	2 persons	26038	2263	1,2
	3 persons	26047	2272	1,3
	4 persons	26056	2281	1,4
	5 persons	26065	2290	1,5
	6 persons	26074	2299	1,6
	7 or more persons	26083	2308	1,7
	Renter occupied:			
	(Repeat PERSONS IN UNIT)	26092	2317	2,1
H19.	AGGREGATE PERSONS(1) BY TENURE(2) [2]			
	Universe: Persons in occupied housing units			
	Total:			
	Owner occupied	26155	2380	1,1
	Renter occupied	26164	2389	1,2
H20.	UNITS IN STRUCTURE(10) [10]			
	Universe: Housing units			
	1, detached	26173	2398	1
	1, attached	26182	2407	2
	2	26191	2416	3
	3 or 4	26200	2425	4
	5 to 9	26209	2434	5
	10 to 19	26218	2443	6
	20 to 49	26227	2452	7
	50 or more	26236	2461	8
	Mobile home or trailer	26245	2470	9
	Other	26254	2479	10

TABLE (MATRIX) SECTION—(Con.)

Table (matrix) number	Table (matrix)	Starting position	Starting position within segment	Table (matrix) coordinates
H21.	UNITS IN STRUCTURE(10) [10]			
	Universe: Vacant housing units			
	1, detached	26263	2488	1
	1, attached	26272	2497	2
	2	26281	2506	3
	3 or 4	26290	2515	4
	5 to 9	26299	2524	5
	10 to 19	26308	2533	6
	20 to 49	26317	2542	7
	50 or more	26326	2551	8
	Mobile home or trailer	26335	2560	9
	Other	26344	2569	10
H22.	TENURE(2) BY UNITS IN STRUCTURE(10) [20]			
	Universe: Occupied housing units			
	Owner occupied:			
	1, detached	26353	2578	1,1
	1, attached	26362	2587	1,2
	2	26371	2596	1,3
	3 or 4	26380	2605	1,4
	5 to 9	26389	2614	1,5
	10 to 19	26398	2623	1,6
	20 to 49	26407	2632	1,7
	50 or more	26416	2641	1,8
	Mobile home or trailer	26425	2650	1,9
	Other	26434	2659	1,10
	Renter occupied:			
	(Repeat UNITS IN STRUCTURE)	26443	2668	2,1
H23.	SOURCE OF WATER(4) [4]			
	Universe: Housing units			
	Public system or private company	26533	2758	1
	Individual well:			
	Drilled	26542	2767	2
	Dug	26551	2776	3
	Some other source	26560	2785	4
H24.	SEWAGE DISPOSAL(3) [3]			
	Universe: Housing units			
	Public sewer	26569	2794	1
	Septic tank or cesspool	26578	2803	2
	Other means	26587	2812	3
H25.	YEAR STRUCTURE BUILT(8) [8]			
	Universe: Housing units			
	1989 to March 1990	26596	2821	1
	1985 to 1988	26605	2830	2
	1980 to 1984	26614	2839	3
	1970 to 1979	26623	2848	4
	1960 to 1969	26632	2857	5
	1950 to 1959	26641	2866	6
	1940 to 1949	26650	2875	7
	1939 or earlier	26659	2884	8
H25A.	MEDIAN YEAR STRUCTURE BUILT(1) [1]			
	Universe: Housing units			
	Median year structure built	26668	2893	1

TABLE (MATRIX) SECTION—(Con.)

Table (matrix) number	Table (matrix)	Starting position	Starting position within segment	Table (matrix) coordinates
H26.	YEAR STRUCTURE BUILT(8) [8]			
	Universe: Vacant housing units			
	1989 to March 1990	26677	2902	1
	1985 to 1988	26686	2911	2
	1980 to 1984	26695	2920	3
	1970 to 1979	26704	2929	4
	1960 to 1969	26713	2938	5
	1950 to 1959	26722	2947	6
	1940 to 1949	26731	2956	7
	1939 or earlier	26740	2965	8
H27.	TENURE(2) BY YEAR STRUCTURE BUILT(8) [16]			
	Universe: Occupied housing units			
	Owner occupied:			
	1989 to March 1990	26749	2974	1,1
	1985 to 1988	26758	2983	1,2
	1980 to 1984	26767	2992	1,3
	1970 to 1979	26776	3001	1,4
	1960 to 1969	26785	3010	1,5
	1950 to 1959	26794	3019	1,6
	1940 to 1949	26803	3028	1,7
	1939 or earlier	26812	3037	1,8
	Renter occupied:			
	(Repeat YEAR STRUCTURE BUILT)	26821	3046	2,1
H28.	YEAR HOUSEHOLDER MOVED INTO UNIT(6) [6]			
	Universe: Occupied housing units			
	1989 to March 1990	26893	3118	1
	1985 to 1988	26902	3127	2
	1980 to 1984	26911	3136	3
	1970 to 1979	26920	3145	4
	1960 to 1969	26929	3154	5
	1959 or earlier	26938	3163	6
H29.	TENURE(2) BY YEAR HOUSEHOLDER MOVED INTO UNIT(6) [12]			
	Universe: Occupied housing units			
	Owner occupied:			
	1989 to March 1990	26947	3172	1,1
	1985 to 1988	26956	3181	1,2
	1980 to 1984	26965	3190	1,3
	1970 to 1979	26974	3199	1,4
	1960 to 1969	26983	3208	1,5
	1959 or earlier	26992	3217	1,6
	Renter occupied:			
	(Repeat YEAR HOUSEHOLDER MOVED INTO UNIT)	27001	3226	2,1
H30.	HOUSE HEATING FUEL(9) [9]			
	Universe: Occupied housing units			
	Utility gas	27055	3280	1
	Bottled, tank, or LP gas	27064	3289	2
	Electricity	27073	3298	3
	Fuel oil, kerosene, etc.	27082	3307	4
	Coal or coke	27091	3316	5
	Wood	27100	3325	6
	Solar energy	27109	3334	7
	Other fuel	27118	3343	8
	No fuel used	27127	3352	9

Table (matrix) number	Table (matrix)	Starting position	Starting position within segment	Table (matrix) coordinates
H31.	BEDROOMS(6) [6]			
	Universe: Housing units			
	No bedroom	27136	3361	1
	1 bedroom	27145	3370	2
	2 bedrooms	27154	3379	3
	3 bedrooms	27163	3388	4
	4 bedrooms	27172	3397	5
	5 or more bedrooms	27181	3406	6
H32.	BEDROOMS(6) [6]			
	Universe: Vacant housing units			
	No bedroom	27190	3415	1
	1 bedroom	27199	3424	2
	2 bedrooms	27208	3433	3
	3 bedrooms	27217	3442	4
	4 bedrooms	27226	3451	5
	5 or more bedrooms	27235	3460	6
H33.	TENURE(2) BY BEDROOMS(6) [12]			
	Universe: Occupied housing units			
	Owner occupied:			
	No bedroom	27244	3469	1,1
	1 bedroom	27253	3478	1,2
	2 bedrooms	27262	3487	1,3
	3 bedrooms	27271	3496	1,4
	4 bedrooms	27280	3505	1,5
	5 or more bedrooms	27289	3514	1,6
	Renter occupied:			
	(Repeat BEDROOMS)	27298	3523	2,1
H34.	BEDROOMS(4) BY GROSS RENT(7) [28]			
	Universe: Specified renter-occupied housing units			
	No bedroom:			
	With cash rent:			
	Less than $200	27352	3577	1,1
	$200 to $299	27361	3586	1,2
	$300 to $499	27370	3595	1,3
	$500 to $749	27379	3604	1,4
	$750 to $999	27388	3613	1,5
	$1,000 or more	27397	3622	1,6
	No cash rent	27406	3631	1,7
	1 bedroom:			
	(Repeat GROSS RENT)	27415	3640	2,1
	2 bedrooms:			
	(Repeat GROSS RENT)	27478	3703	3,1
	3 or more bedrooms:			
	(Repeat GROSS RENT)	27541	3766	4,1
H35.	TENURE(2) BY TELEPHONE IN HOUSING UNIT(2) [4]			
	Universe: Occupied housing units			
	Owner occupied:			
	With telephone	27604	3829	1,1
	No telephone	27613	3838	1,2
	Renter occupied:			
	(Repeat TELEPHONE IN HOUSING UNIT)	27622	3847	2,1

Table (matrix) number	Table (matrix)	Starting position	Starting position within segment	Table (matrix) coordinates
H36.	AGE OF HOUSEHOLDER(4) BY TELEPHONE IN HOUSING UNIT(2) [8]			
	Universe: Occupied housing units			
	15 to 59 years:			
	With telephone	27640	3865	1,1
	No telephone	27649	3874	1,2
	60 to 64 years:			
	(Repeat TELEPHONE IN HOUSING UNIT)	27658	3883	2,1
	65 to 74 years:			
	(Repeat TELEPHONE IN HOUSING UNIT)	27676	3901	3,1
	75 years and over:			
	(Repeat TELEPHONE IN HOUSING UNIT)	27694	3919	4,1
H37.	TENURE(2) BY VEHICLES AVAILABLE(6) [12]			
	Universe: Occupied housing units			
	Owner occupied:			
	None	27712	3937	1,1
	1	27721	3946	1,2
	2	27730	3955	1,3
	3	27739	3964	1,4
	4	27748	3973	1,5
	5 or more	27757	3982	1,6
	Renter occupied:			
	(Repeat VEHICLES AVAILABLE)	27766	3991	2,1
H38.	AGGREGATE VEHICLES AVAILABLE(1) BY TENURE(2) [2]			
	Universe: Occupied housing units			
	Total:			
	Owner occupied	27820	4045	1,1
	Renter occupied	27829	4054	1,2
H39.	RACE OF HOUSEHOLDER(5) BY VEHICLES AVAILABLE(2) [10]			
	Universe: Occupied housing units			
	White:			
	None	27838	4063	1,1
	1 or more	27847	4072	1,2
	Black:			
	(Repeat VEHICLES AVAILABLE)	27856	4081	2,1
	American Indian, Eskimo, or Aleut:			
	(Repeat VEHICLES AVAILABLE)	27874	4099	3,1
	Asian or Pacific Islander:			
	(Repeat VEHICLES AVAILABLE)	27892	4117	4,1
	Other race:			
	(Repeat VEHICLES AVAILABLE)	27910	4135	5,1
H40.	VEHICLES AVAILABLE(2) [2]			
	Universe: Occupied housing units with householder of Hispanic origin			
	None	27928	4153	1
	1 or more	27937	4162	2
H41.	AGE OF HOUSEHOLDER(2) BY VEHICLES AVAILABLE(2) [4]			
	Universe: Occupied housing units			
	15 to 64 years:			
	None	27946	4171	1,1
	1 or more	27955	4180	1,2
	65 years and over:			
	(Repeat VEHICLES AVAILABLE)	27964	4189	2,1
H42.	KITCHEN FACILITIES(2) [2]			
	Universe: Housing units			
	Complete kitchen facilities	27982	4207	1
	Lacking complete kitchen facilities	27991	4216	2

Table (matrix) number	Table (matrix)	Starting position	Starting position within segment	Table (matrix) coordinates
H43.	GROSS RENT(17) [17]			
	Universe: Specified renter-occupied housing units			
	With cash rent:			
	Less than $100	28000	4225	1
	$100 to $149	28009	4234	2
	$150 to $199	28018	4243	3
	$200 to $249	28027	4252	4
	$250 to $299	28036	4261	5
	$300 to $349	28045	4270	6
	$350 to $399	28054	4279	7
	$400 to $449	28063	4288	8
	$450 to $499	28072	4297	9
	$500 to $549	28081	4306	10
	$550 to $599	28090	4315	11
	$600 to $649	28099	4324	12
	$650 to $699	28108	4333	13
	$700 to $749	28117	4342	14
	$750 to $999	28126	4351	15
	$1,000 or more	28135	4360	16
	No cash rent	28144	4369	17
H43A.	MEDIAN GROSS RENT(1) [1]			
	Universe: Specified renter-occupied housing units paying cash rent			
	Median gross rent	28153	4378	1
H44.	AGGREGATE GROSS RENT(1) [1]			
	Universe: Specified renter-occupied housing units paying cash rent			
	Total	28162	4387	1
H45.	RACE OF HOUSEHOLDER(5) BY GROSS RENT(7) [35]			
	Universe: Specified renter-occupied housing units			
	White:			
	With cash rent:			
	Less than $200	28177	4402	1,1
	$200 to $299	28186	4411	1,2
	$300 to $499	28195	4420	1,3
	$500 to $749	28204	4429	1,4
	$750 to $999	28213	4438	1,5
	$1,000 or more	28222	4447	1,6
	No cash rent	28231	4456	1,7
	Black:			
	(Repeat GROSS RENT)	28240	4465	2,1
	American Indian, Eskimo, or Aleut:			
	(Repeat GROSS RENT)	28303	4528	3,1
	Asian or Pacific Islander:			
	(Repeat GROSS RENT)	28366	4591	4,1
	Other race:			
	(Repeat GROSS RENT)	28429	4654	5,1
H46.	HISPANIC ORIGIN(2) BY GROSS RENT(7) [14]			
	Universe: Specified renter-occupied housing units			
	Not of Hispanic origin:			
	With cash rent:			
	Less than $200	28492	4717	1,1
	$200 to $299	28501	4726	1,2
	$300 to $499	28510	4735	1,3
	$500 to $749	28519	4744	1,4
	$750 to $999	28528	4753	1,5
	$1,000 or more	28537	4762	1,6
	No cash rent	28546	4771	1,7

Table (matrix) number	Table (matrix)	Starting position	Starting position within segment	Table (matrix) coordinates
H46.	HISPANIC ORIGIN(2) BY GROSS RENT(7) [14]—Con.			
	Hispanic origin:			
	(Repeat GROSS RENT)	28555	4780	2,1
H47.	MEALS INCLUDED IN RENT(2) [2]			
	Universe: Specified renter-occupied housing units paying cash rent			
	Meals included in rent	28618	4843	1
	No meals included in rent	28627	4852	2
H48.	AGGREGATE GROSS RENT(1) BY MEALS INCLUDED IN RENT(2) [2]			
	Universe: Specified renter-occupied housing units paying cash rent			
	Total:			
	Meals included in rent	28636	4861	1,1
	No meals included in rent	28651	4876	1,2
H49.	INCLUSION OF UTILITIES IN RENT(2) [2]			
	Universe: Specified renter-occupied housing units			
	Pay extra for 1 or more utilities	28666	4891	1
	No extra payment for any utilities	28675	4900	2
H50.	HOUSEHOLD INCOME IN 1989(5) BY GROSS RENT AS A PERCENTAGE OF HOUSEHOLD INCOME IN 1989(6) [30]			
	Universe: Specified renter-occupied housing units			
	Less than $10,000:			
	Less than 20 percent	28684	4909	1,1
	20 to 24 percent	28693	4918	1,2
	25 to 29 percent	28702	4927	1,3
	30 to 34 percent	28711	4936	1,4
	35 percent or more	28720	4945	1,5
	Not computed	28729	4954	1,6
	$10,000 to $19,999:			
	(Repeat GROSS RENT AS A PERCENTAGE OF HOUSEHOLD INCOME IN 1989)	28738	4963	2,1
	$20,000 to $34,999:			
	(Repeat GROSS RENT AS A PERCENTAGE OF HOUSEHOLD INCOME IN 1989)	28792	5017	3,1
	$35,000 to $49,999:			
	(Repeat GROSS RENT AS A PERCENTAGE OF HOUSEHOLD INCOME IN 1989)	28846	5071	4,1
	$50,000 or more:			
	(Repeat GROSS RENT AS A PERCENTAGE OF HOUSEHOLD INCOME IN 1989)	28900	5125	5,1
H50A.	MEDIAN GROSS RENT AS A PERCENTAGE OF HOUSEHOLD INCOME IN 1989(1) [1]			
	1 implied decimal(s)			
	Universe: Specified renter-occupied housing units paying cash rent			
	Median gross rent as a percentage of household income in 1989	28954	5179	1
H51.	AGE OF HOUSEHOLDER(2) BY GROSS RENT AS A PERCENTAGE OF HOUSEHOLD INCOME IN 1989(6) [12]			
	Universe: Specified renter-occupied housing units			
	15 to 64 years:			
	Less than 20 percent	28963	5188	1,1
	20 to 24 percent	28972	5197	1,2
	25 to 29 percent	28981	5206	1,3
	30 to 34 percent	28990	5215	1,4
	35 percent or more	28999	5224	1,5
	Not computed	29008	5233	1,6

Table (matrix) number	Table (matrix)	Starting position	Starting position within segment	Table (matrix) coordinates
H51.	AGE OF HOUSEHOLDER(2) BY GROSS RENT AS A PERCENTAGE OF HOUSEHOLD INCOME IN 1989(6) [12]—Con.			
	65 years and over:			
	(Repeat GROSS RENT AS A PERCENTAGE OF HOUSEHOLD INCOME IN 1989)	29017	5242	2,1
H52.	MORTGAGE STATUS AND SELECTED MONTHLY OWNER COSTS(21) [21]			
	Universe: Specified owner-occupied housing units			
	With a mortgage:			
	Less than $200	29071	5296	1
	$200 to $299	29080	5305	2
	$300 to $399	29089	5314	3
	$400 to $499	29098	5323	4
	$500 to $599	29107	5332	5
	$600 to $699	29116	5341	6
	$700 to $799	29125	5350	7
	$800 to $899	29134	5359	8
	$900 to $999	29143	5368	9
	$1,000 to $1,249	29152	5377	10
	$1,250 to $1,499	29161	5386	11
	$1,500 to $1,999	29170	5395	12
	$2,000 or more	29179	5404	13
	Not mortgaged:			
	Less than $100	29188	5413	14
	$100 to $149	29197	5422	15
	$150 to $199	29206	5431	16
	$200 to $249	29215	5440	17
	$250 to $299	29224	5449	18
	$300 to $349	29233	5458	19
	$350 to $399	29242	5467	20
	$400 or more	29251	5476	21
H52A.	MEDIAN SELECTED MONTHLY OWNER COSTS AND MORTGAGE STATUS(2) [2]			
	Universe: Specified owner-occupied housing units			
	With a mortgage	29260	5485	1
	Not mortgaged	29269	5494	2
H53.	AGGREGATE SELECTED MONTHLY OWNER COSTS(1) BY MORTGAGE STATUS(2) [2]			
	Universe: Specified owner-occupied housing units			
	Total:			
	With a mortgage	29278	5503	1,1
	Not mortgaged	29293	5518	1,2
H54.	RACE OF HOUSEHOLDER(5) BY MORTGAGE STATUS AND SELECTED MONTHLY OWNER COSTS(11) [55]			
	Universe: Specified owner-occupied housing units			
	White:			
	With a mortgage:			
	Less than $300	29308	5533	1,1
	$300 to $499	29317	5542	1,2
	$500 to $699	29326	5551	1,3
	$700 to $999	29335	5560	1,4
	$1,000 to $1,499	29344	5569	1,5
	$1,500 or more	29353	5578	1,6

Table (matrix) number	Table (matrix)	Starting position	Starting position within segment	Table (matrix) coordinates
H54.	RACE OF HOUSEHOLDER(5) BY MORTGAGE STATUS AND SELECTED MONTHLY OWNER COSTS(11) [55]—Con.			
	Not mortgaged:			
	Less than $100	29362	5587	1,7
	$100 to $199	29371	5596	1,8
	$200 to $299	29380	5605	1,9
	$300 to $399	29389	5614	1,10
	$400 or more	29398	5623	1,11
	Black:			
	(Repeat MORTGAGE STATUS AND SELECTED MONTHLY OWNER COSTS)	29407	5632	2,1
	American Indian, Eskimo, or Aleut:			
	(Repeat MORTGAGE STATUS AND SELECTED MONTHLY OWNER COSTS)	29506	5731	3,1
	Asian or Pacific Islander:			
	(Repeat MORTGAGE STATUS AND SELECTED MONTHLY OWNER COSTS)	29605	5830	4,1
	Other race:			
	(Repeat MORTGAGE STATUS AND SELECTED MONTHLY OWNER COSTS)	29704	5929	5,1
H55.	MORTGAGE STATUS AND SELECTED MONTHLY OWNER COSTS(11) [11]			
	Universe: Specified owner-occupied housing units with householder of Hispanic origin			
	With a mortgage:			
	Less than $300	29803	6028	1
	$300 to $499	29812	6037	2
	$500 to $699	29821	6046	3
	$700 to $999	29830	6055	4
	$1,000 to $1,499	29839	6064	5
	$1,500 or more	29848	6073	6
	Not mortgaged:			
	Less than $100	29857	6082	7
	$100 to $199	29866	6091	8
	$200 to $299	29875	6100	9
	$300 to $399	29884	6109	10
	$400 or more	29893	6118	11
H56.	AGGREGATE SELECTED MONTHLY OWNER COSTS(1) BY MORTGAGE STATUS(2) [2]			
	Universe: Owner-occupied mobile homes or trailers			
	Total:			
	With a mortgage	29902	6127	1,1
	Not mortgaged	29917	6142	1,2
H57.	AGGREGATE SELECTED MONTHLY OWNER COSTS(1) BY MORTGAGE STATUS(2) [2]			
	Universe: Owner-occupied condominium housing units			
	Total:			
	With a mortgage	29932	6157	1,1
	Not mortgaged	29947	6172	1,2

Table (matrix) number	Table (matrix)	Starting position	Starting position within segment	Table (matrix) coordinates
H58.	MORTGAGE STATUS(2) BY SELECTED MONTHLY OWNER COSTS AS A PERCENTAGE OF HOUSEHOLD INCOME IN 1989(6) [12]			
	Universe: Specified owner-occupied housing units			
	With a mortgage:			
	Less than 20 percent	29962	6187	1,1
	20 to 24 percent	29971	6196	1,2
	25 to 29 percent	29980	6205	1,3
	30 to 34 percent	29989	6214	1,4
	35 percent or more	29998	6223	1,5
	Not computed	30007	6232	1,6
	Not mortgaged:			
	(Repeat SELECTED MONTHLY OWNER COSTS AS A PERCENTAGE OF HOUSEHOLD INCOME IN 1989)	30016	6241	2,1
H58A.	MEDIAN SELECTED MONTHLY OWNER COSTS AS A PERCENTAGE OF HOUSEHOLD INCOME IN 1989 AND MORTGAGE STATUS(2) [2]			
	1 implied decimal(s)			
	Universe: Specified owner-occupied housing units			
	With a mortgage	30070	6295	1
	Not mortgaged	30079	6304	2
H59.	HOUSEHOLD INCOME IN 1989(5) BY SELECTED MONTHLY OWNER COSTS AS A PERCENTAGE OF HOUSEHOLD INCOME IN 1989(6) [30]			
	Universe: Specified owner-occupied housing units			
	Less than $10,000:			
	Less than 20 percent	30088	6313	1,1
	20 to 24 percent	30097	6322	1,2
	25 to 29 percent	30106	6331	1,3
	30 to 34 percent	30115	6340	1,4
	35 percent or more	30124	6349	1,5
	Not computed	30133	6358	1,6
	$10,000 to $19,999:			
	(Repeat SELECTED MONTHLY OWNER COSTS AS A PERCENTAGE OF HOUSEHOLD INCOME IN 1989)	30142	6367	2,1
	$20,000 to $34,999:			
	(Repeat SELECTED MONTHLY OWNER COSTS AS A PERCENTAGE OF HOUSEHOLD INCOME IN 1989)	30196	6421	3,1
	$35,000 to $49,999:			
	(Repeat SELECTED MONTHLY OWNER COSTS AS A PERCENTAGE OF HOUSEHOLD INCOME IN 1989)	30250	6475	4,1
	$50,000 or more:			
	(Repeat SELECTED MONTHLY OWNER COSTS AS A PERCENTAGE OF HOUSEHOLD INCOME IN 1989)	30304	6529	5,1
H60.	AGE OF HOUSEHOLDER(2) BY SELECTED MONTHLY OWNER COSTS AS A PERCENTAGE OF HOUSEHOLD INCOME IN 1989(6) [12]			
	Universe: Specified owner-occupied housing units			
	15 to 64 years:			
	Less than 20 percent	30358	6583	1,1
	20 to 24 percent	30367	6592	1,2
	25 to 29 percent	30376	6601	1,3
	30 to 34 percent	30385	6610	1,4
	35 percent or more	30394	6619	1,5
	Not computed	30403	6628	1,6
	65 years and over:			
	(Repeat SELECTED MONTHLY OWNER COSTS AS A PERCENTAGE OF HOUSEHOLD INCOME IN 1989)	30412	6637	2,1

Table (matrix) number	Table (matrix)	Starting position	Starting position within segment	Table (matrix) coordinates
H61.	VALUE(20) [20]			
	Universe: Specified owner-occupied housing units			
	Less than $15,000	30466	6691	1
	$15,000 to $19,999	30475	6700	2
	$20,000 to $24,999	30484	6709	3
	$25,000 to $29,999	30493	6718	4
	$30,000 to $34,999	30502	6727	5
	$35,000 to $39,999	30511	6736	6
	$40,000 to $44,999	30520	6745	7
	$45,000 to $49,999	30529	6754	8
	$50,000 to $59,999	30538	6763	9
	$60,000 to $74,999	30547	6772	10
	$75,000 to $99,999	30556	6781	11
	$100,000 to $124,999	30565	6790	12
	$125,000 to $149,999	30574	6799	13
	$150,000 to $174,999	30583	6808	14
	$175,000 to $199,999	30592	6817	15
	$200,000 to $249,999	30601	6826	16
	$250,000 to $299,999	30610	6835	17
	$300,000 to $399,999	30619	6844	18
	$400,000 to $499,999	30628	6853	19
	$500,000 or more	30637	6862	20
H61A.	MEDIAN VALUE(1) [1]			
	Universe: Specified owner-occupied housing units			
	Median value	30646	6871	1
H62.	AGGREGATE VALUE(1) BY MORTGAGE STATUS(2) [2]			
	Universe: Specified owner-occupied housing units			
	Total:			
	With a mortgage	30655	6880	1,1
	Not mortgaged	30670	6895	1,2
H63.	AGGREGATE HOUSEHOLD INCOME IN 1989(1) BY TENURE AND MORTGAGE STATUS(3) [3]			
	Universe: Occupied housing units			
	Total:			
	Owner occupied:			
	With a mortgage	30685	6910	1,1
	Not mortgaged	30700	6925	1,2
	Renter occupied	30715	6940	1,3
H64.	PLUMBING FACILITIES(2) [2]			
	Universe: Housing units			
	Complete plumbing facilities	30730	6955	1
	Lacking complete plumbing facilities	30739	6964	2
H65.	PLUMBING FACILITIES(2) [2]			
	Universe: Vacant housing units			
	Complete plumbing facilities	30748	6973	1
	Lacking complete plumbing facilities	30757	6982	2
H66.	RACE OF HOUSEHOLDER(5) BY PLUMBING FACILITIES(2) [10]			
	Universe: Occupied housing units			
	White:			
	Complete plumbing facilities	30766	6991	1,1
	Lacking complete plumbing facilities	30775	7000	1,2
	Black:			
	(Repeat PLUMBING FACILITIES)	30784	7009	2,1
	American Indian, Eskimo, or Aleut:			
	(Repeat PLUMBING FACILITIES)	30802	7027	3,1

Table (matrix) number	Table (matrix)	Starting position	Starting position within segment	Table (matrix) coordinates
H66.	RACE OF HOUSEHOLDER(5) BY PLUMBING FACILITIES(2) [10]—Con.			
	Asian or Pacific Islander:			
	(Repeat PLUMBING FACILITIES)	30820	7045	4,1
	Other race:			
	(Repeat PLUMBING FACILITIES)	30838	7063	5,1
H67.	PLUMBING FACILITIES(2) [2]			
	Universe: Occupied housing units with householder of Hispanic origin			
	Complete plumbing facilities	30856	7081	1
	Lacking complete plumbing facilities	30865	7090	2
H68.	AGE OF HOUSEHOLDER(2) BY PLUMBING FACILITIES(2) [4]			
	Universe: Occupied housing units			
	15 to 64 years:			
	Complete plumbing facilities	30874	7099	1,1
	Lacking complete plumbing facilities	30883	7108	1,2
	65 years and over:			
	(Repeat PLUMBING FACILITIES)	30892	7117	2,1
H69.	TENURE(2) BY PLUMBING FACILITIES(2) BY PERSONS PER ROOM(3) [12]			
	Universe: Occupied housing units			
	Owner occupied:			
	Complete plumbing facilities:			
	1.00 or less	30910	7135	1,1,1
	1.01 to 1.50	30919	7144	1,1,2
	1.51 or more	30928	7153	1,1,3
	Lacking complete plumbing facilities:			
	(Repeat PERSONS PER ROOM)	30937	7162	1,2,1
	Renter occupied:			
	(Repeat PLUMBING FACILITIES By PERSONS PER ROOM)	30964	7189	2,1,1
H70.	PLUMBING FACILITIES(2) BY UNITS IN STRUCTURE(10) [20]			
	Universe: Housing units			
	Complete plumbing facilities:			
	1, detached	31018	7243	1,1
	1, attached	31027	7252	1,2
	2	31036	7261	1,3
	3 or 4	31045	7270	1,4
	5 to 9	31054	7279	1,5
	10 to 19	31063	7288	1,6
	20 to 49	31072	7297	1,7
	50 or more	31081	7306	1,8
	Mobile home or trailer	31090	7315	1,9
	Other	31099	7324	1,10
	Lacking complete plumbing facilities:			
	(Repeat UNITS IN STRUCTURE)	31108	7333	2,1
H71.	PLUMBING FACILITIES(2) BY PERSONS PER ROOM(2) BY YEAR STRUCTURE BUILT(2) [8]			
	Universe: Occupied housing units			
	Complete plumbing facilities:			
	1.00 or less:			
	1940 to March 1990	31198	7423	1,1,1
	1939 or earlier	31207	7432	1,1,2
	1.01 or more:			
	(Repeat YEAR STRUCTURE BUILT)	31216	7441	1,2,1
	Lacking complete plumbing facilities:			
	(Repeat PERSONS PER ROOM By YEAR STRUCTURE BUILT)	31234	7459	2,1,1

Table (matrix) number	Table (matrix)	Starting position	Starting position within segment	Table (matrix) coordinates
H72.	IMPUTATION OF HOUSING ITEMS(2) [2]			
	Universe: Housing units			
	No items allocated	31270	7495	1
	One or more items allocated	31279	7504	2
H73.	IMPUTATION OF CONDOMINIUM STATUS(2) [2]			
	Universe: Housing units			
	Allocated	31288	7513	1
	Not allocated	31297	7522	2
H74.	IMPUTATION OF PLUMBING FACILITIES(2) [2]			
	Universe: Housing units			
	Allocated	31306	7531	1
	Not allocated	31315	7540	2
H75.	IMPUTATION OF SOURCE OF WATER(2) [2]			
	Universe: Housing units			
	Allocated	31324	7549	1
	Not allocated	31333	7558	2
H76.	IMPUTATION OF SEWAGE DISPOSAL(2) [2]			
	Universe: Housing units			
	Allocated	31342	7567	1
	Not allocated	31351	7576	2
H77.	IMPUTATION OF YEAR STRUCTURE BUILT(2) [2]			
	Universe: Housing units			
	Allocated	31360	7585	1
	Not allocated	31369	7594	2
H78.	IMPUTATION OF YEAR HOUSEHOLDER MOVED INTO UNIT(2) [2]			
	Universe: Occupied housing units			
	Allocated	31378	7603	1
	Not allocated	31387	7612	2
H79.	IMPUTATION OF HOUSE HEATING FUEL(2) [2]			
	Universe: Occupied housing units			
	Allocated	31396	7621	1
	Not allocated	31405	7630	2
H80.	IMPUTATION OF KITCHEN FACILITIES(2) [2]			
	Universe: Housing units			
	Allocated	31414	7639	1
	Not allocated	31423	7648	2
H81.	IMPUTATION OF BEDROOMS(2) [2]			
	Universe: Housing units			
	Allocated	31432	7657	1
	Not allocated	31441	7666	2
H82.	IMPUTATION OF TELEPHONE IN HOUSING UNIT(2) [2]			
	Universe: Occupied housing units			
	Allocated	31450	7675	1
	Not allocated	31459	7684	2
H83.	IMPUTATION OF VEHICLES AVAILABLE(2) [2]			
	Universe: Occupied housing units			
	Allocated	31468	7693	1
	Not allocated	31477	7702	2
H84.	IMPUTATION OF MORTGAGE STATUS(2) [2]			
	Universe: Specified owner-occupied housing units			
	Allocated	31486	7711	1
	Not allocated	31495	7720	2

TABLE (MATRIX) SECTION—(Con.)

Table (matrix) number	Table (matrix)	Starting position	Starting position within segment	Table (matrix) coordinates
H85.	IMPUTATION OF TENURE(2) [2]			
	Universe: Occupied housing units			
	Allocated	31504	7729	1
	Not allocated	31513	7738	2
H86.	IMPUTATION OF VACANCY STATUS(2) [2]			
	Universe: Vacant housing units			
	Allocated	31522	7747	1
	Not allocated	31531	7756	2
H87.	IMPUTATION OF ROOMS(2) [2]			
	Universe: Housing units			
	Allocated	31540	7765	1
	Not allocated	31549	7774	2
H88.	IMPUTATION OF UNITS IN STRUCTURE(2) [2]			
	Universe: Housing units			
	Allocated	31558	7783	1
	Not allocated	31567	7792	2
H89.	IMPUTATION OF VALUE(2) [2]			
	Universe: Specified owner-occupied housing units			
	Allocated	31576	7801	1
	Not allocated	31585	7810	2
H90.	IMPUTATION OF MEALS INCLUDED IN RENT(2) [2]			
	Universe: Specified renter-occupied housing units paying cash rent			
	Allocated	31594	7819	1
	Not allocated	31603	7828	2
H91.	IMPUTATION OF GROSS RENT(2) [2]			
	Universe: Specified renter-occupied housing units			
	Allocated	31612	7837	1
	Not allocated	31621	7846	2
H92.	IMPUTATION OF MORTGAGE STATUS AND SELECTED MONTHLY OWNER COSTS(4) [4]			
	Universe: Specified owner-occupied housing units			
	With a mortgage:			
	Allocated	31630	7855	1
	Not allocated	31639	7864	2
	Not mortgaged:			
	Allocated	31648	7873	3
	Not allocated	31657	7882	4
	Filler	31666	7891	
	End of Record			

APPENDIX A.
Area Classifications

CONTENTS

Alaska Native Regional Corporation (ANRC) *(See American Indian and Alaska Native Area)*
Alaska Native Village (ANV) *(See American Indian and Alaska Native Area)*
Alaska Native Village Statistical Area *(See American Indian and Alaska Native Area)*
American Indian and Alaska Native Area A–1
American Indian Reservation *(See American Indian and Alaska Native Area, see County Subdivision)*
American Indian Reservation and Trust Land *(See American Indian and Alaska Native Area)*
American Samoa *(See Outlying Areas of the United States, see State)*
Area Measurement A–3
Assessment District *(See County Subdivision)*
Block A–3
Block Group (BG) A–4
Block Numbering Area (BNA) *(See Census Tract and Block Numbering Area)*
Borough *(See County Subdivision, see Place)*
Borough and Census Area (Alaska) *(See County)*
Boundary Changes A–4
Census Area (Alaska) *(See County)*
Census Block *(See Block)*
Census Code *(See Geographic Code)*
Census County Division (CCD) *(See County Subdivision)*
Census Designated Place (CDP) *(See Place)*
Census Division *(See Census Region and Census Division)*
Census Geographic Code *(See Geographic Code)*
Census Region and Census Division A–4
Census Subarea (Alaska) *(See County Subdivision)*
Census Tract and Block Numbering Area A–5
Central City *(See Metropolitan Area)*
Central Place *(See Urbanized Area)*
City *(See Place)*
Congressional District (CD) A–6
Consolidated City *(See Place)*
Consolidated Metropolitan Statistical Area (CMSA) *(See Metropolitan Area)*
County A–6
County Subdivision A–6
Crews of Vessels *(See Area Measurement, see Block, see Census Tract and Block Numbering Area)*
Division *(See Census Region and Division, see County Subdivision)*
Election District *(See County Subdivision, see Voting District)*
Extended City *(See Urban and Rural)*
Farm *(See Urban and Rural)*
Federal Information Processing Standards (FIPS) Code *(See Geographic Code)*
Geographic Block Group *(See Block Group)*
Geographic Code A–7
Geographic Presentation A–7
Gore *(See County Subdivision)*
Grant *(See County Subdivision)*
Guam *(See Outlying Areas of the United States, see State)*
Hierarchical Presentation *(See Geographic Presentation)*
Historic Areas of Oklahoma *(See American Indian and Alaska Native Area, Tribal Jurisdiction Statistical Area)*
Historical Counts A–8
Incorporated Place *(See Place)*
Independent City *(See County)*
Internal Point A–8
Inventory Presentation *(See Geographic Presentation)*
Land Area *(See Area Measurement)*
Latitude *(See Internal Point)*
Longitude *(See Internal Point)*
Magisterial District *(See County Subdivision)*
Metropolitan Area (MA) A–8
Metropolitan Statistical Area (MSA) *(See Metropolitan Area)*
Minor Civil Division (MCD) *(See County Subdivision)*
Northern Mariana Islands *(See Outlying Areas of the United States, see State)*
Outlying Areas of the United States A–9
Palau *(See Outlying Areas of the United States, see State)*
Parish (Louisiana) *(See County)*
Parish Governing Authority District *(See County Subdivision)*
Place A–9
Plantation *(See County Subdivision)*
Population or Housing Unit Density A–11
Precinct *(See County Subdivision, see Voting District)*
Primary Metropolitan Statistical Area (PMSA) *(See Metropolitan Area)*
Puerto Rico *(See Outlying Areas of the United States, see State)*
Purchase *(See County Subdivision)*
Region *(See Census Region and Census Division)*
Rural *(See Urban and Rural)*
Selected States *(See County Subdivision, see State)*
State A–11
Supervisors' District *(See County Subdivision)*
Tabulation Block Group *(See Block Group)*
TIGER A–11
Town *(See County Subdivision, see Place)*
Township *(See County Subdivision)*
Tract *(See Census Tract and Block Numbering Area)*
Tribal Designated Statistical Area (TDSA) *(See American Indian and Alaska Native Area)*
Tribal Jurisdiction Statistical Area (TJSA) *(See American Indian and Alaska Native Area)*
Trust Land *(See American Indian and Alaska Native Area)*
United States A–11
Unorganized Territory (unorg.) *(See County Subdivision)*
Urban and Rural A–11
Urbanized Area (UA) A–12
Village *(See Place)*
Virgin Islands *(See Outlying Areas of the United States, see State)*
Voting District (VTD) A–13
Water Area *(See Area Measurement)*
ZIP Code® A–13

These definitions are for all geographic entities and concepts that the Census Bureau will include in its standard 1990 census data products. Not all entities and concepts are shown in any one 1990 census data product. For a description of geographic areas included in each data product, see appendix F.

AMERICAN INDIAN AND ALASKA NATIVE AREA

Alaska Native Regional Corporation (ANRC)

Alaska Native Regional Corporations (ANRC's) are corporate entities established under the Alaska Native Claims Settlement Act of 1972, Public Law 92-203, as amended by Public Law 94-204, to conduct both business and nonprofit affairs of Alaska Natives. Alaska is divided into

12 ANRC's that cover the entire State, except for the Annette Islands Reserve. The boundaries of the 12 ANRC's were established by the Department of the Interior, in cooperation with Alaska Natives. Each ANRC was designed to include, as far as practicable, Alaska Natives with a common heritage and common interests. The ANRC boundaries for the 1990 census were identified by the Bureau of Land Management. A 13th region was established for Alaska Natives who are not permanent residents and who chose not to enroll in one of the 12 ANRC's; no census products are prepared for the 13th region. ANRC's were first identified for the 1980 census.

Each ANRC is assigned a two-digit census code ranging from 07 through 84. These census codes are assigned in alphabetical order of the ANRC's.

Alaska Native Village (ANV) Statistical Area

Alaska Native villages (ANV's) constitute tribes, bands, clans, groups, villages, communities, or associations in Alaska that are recognized pursuant to the Alaska Native Claims Settlement Act of 1972, Public Law 92-203. Because ANV's do not have legally designated boundaries, the Census Bureau has established Alaska Native village statistical areas (ANVSA's) for statistical purposes. For the 1990 census, the Census Bureau cooperated with officials of the nonprofit corporation within each participating Alaska Native Regional Corporation (ANRC), as well as other knowledgeable officials, to delineate boundaries that encompass the settled area associated with each ANV. ANVSA's are located within ANRC's and do not cross ANRC boundaries. ANVSA's for the 1990 census replace the ANV's that the Census Bureau recognized for the 1980 census.

Each ANVSA is assigned a four-digit census code ranging from 6001 through 8989. Each ANVSA also is assigned a five-digit FIPS code. Both the census and FIPS codes are assigned in alphabetical order of ANVSA's.

American Indian Reservation and Trust Land

American Indian Reservation—Federal American Indian reservations are areas with boundaries established by treaty, statute, and/or executive or court order, and recognized by the Federal Government as territory in which American Indian tribes have jurisdiction. State reservations are lands held in trust by State governments for the use and benefit of a given tribe. The reservations and their boundaries were identified for the 1990 census by the Bureau of Indian Affairs (BIA), Department of Interior (for Federal reservations), and State governments (for State reservations). The names of American Indian reservations recognized by State governments, but not by the Federal Government, are followed by "(State)." Areas composed of reservation lands that are administered jointly and/or are claimed by two reservations, as identified by the BIA, are called "joint areas," and are treated as separate American Indian reservations for census purposes.

Federal reservations may cross State boundaries, and Federal and State reservations may cross county, county subdivision, and place boundaries. For reservations that cross State boundaries, only the portion of the reservations in a given State are shown in the data products for that State; the entire reservations are shown in data products for the United States.

Each American Indian reservation is assigned a four-digit census code ranging from 0001 through 4989. These census codes are assigned in alphabetical order of American Indian reservations nationwide, except that joint areas appear at the end of the code range. Each American Indian reservation also is assigned a five-digit FIPS code; because the FIPS codes are assigned in alphabetical sequence of American Indian reservations within each State, the FIPS code is different in each State for reservations in more than one State.

Trust Land—Trust lands are property associated with a particular American Indian reservation or tribe, held in trust by the Federal Government. Trust lands may be held in trust either for a tribe (tribal trust land) or for an individual member of a tribe (individual trust land). Trust lands recognized for the 1990 census comprise all tribal trust lands and inhabited individual trust lands located outside of a reservation boundary. As with other American Indian areas, trust lands may be located in more than one State. Only the trust lands in a given State are shown in the data products for that State; all trust lands associated with a reservation or tribe are shown in data products for the United States. The Census Bureau first reported data for tribal trust lands for the 1980 census.

Trust lands are assigned a four-digit census code and a five-digit FIPS code, the same as that for the reservation with which they are associated. Trust lands not associated with a reservation are presented by tribal name, interspersed alphabetically among the reservations.

Tribal Designated Statistical Area (TDSA)

Tribal designated statistical areas (TDSA's) are areas, delineated outside Oklahoma by federally- and State-recognized tribes without a land base or associated trust lands, to provide statistical areas for which the Census Bureau tabulates data. TDSA's represent areas generally containing the American Indian population over which federally-recognized tribes have jurisdiction and areas in which State tribes provide benefits and services to their members. The names of TDSA's delineated by State-recognized tribes are followed by "(State)." The Census Bureau did not recognize TDSA's before the 1990 census.

Each TDSA is assigned a four-digit census code ranging from 9001 through 9589. The census codes are

assigned in alphabetical order of TDSA's nationwide. Each TDSA also is assigned a five-digit FIPS code in alphabetical order within State.

Tribal Jurisdiction Statistical Area (TJSA)

Tribal jurisdiction statistical areas (TJSA's) are areas, delineated by federally-recognized tribes in Oklahoma without a reservation, for which the Census Bureau tabulates data. TJSA's represent areas generally containing the American Indian population over which one or more tribal governments have jurisdiction; if tribal officials delineated adjacent TJSA's so that they include some duplicate territory, the overlap area is called a "joint use area," which is treated as a separate TJSA for census purposes.

TJSA's replace the "Historic Areas of Oklahoma (excluding urbanized areas)" shown in 1980 census data products. The Historic Areas of Oklahoma comprised the territory located within reservations that had legally established boundaries from 1900 to 1907; these reservations were dissolved during the 2- to 3-year period preceding the statehood of Oklahoma in 1907. The Historic Areas of Oklahoma (excluding urbanized areas) were identified only for the 1980 census.

Each TJSA is assigned a four-digit census code ranging from 5001 through 5989. The census codes are assigned in alphabetical order of TJSA's, except that joint areas appear at the end of the code range. Each TJSA also is assigned a five-digit FIPS code in alphabetical order within Oklahoma.

AREA MEASUREMENT

Area measurements provide the size, in square kilometers (also in square miles in printed reports), recorded for each geographic entity for which the Census Bureau tabulates data in general-purpose data products (except crews-of-vessels entities and ZIP Codes). (Square kilometers may be divided by 2.59 to convert an area measurement to square miles.) Area was calculated from the specific set of boundaries recorded for the entity in the Census Bureau's geographic data base (see "TIGER"). On machine-readable files, area measurements are shown to three decimal places; the decimal point is implied. In printed reports and listings, area measurements are shown to one decimal.

The Census Bureau provides measurements for both land area and total water area for the 1990 census; the water figure includes inland, coastal, Great Lakes, and territorial water. (For the 1980 census, the Census Bureau provided area measurements for land and inland water.) The Census Bureau will provide measurements for the component types of water for the affected entities in a separate file. "Inland water" consists of any lake, reservoir, pond, or similar body of water that is recorded in the Census Bureau's geographic data base. It also includes any river, creek, canal, stream, or similar feature that is recorded in that data base as a two-dimensional feature (rather than as a single line). The portions of the oceans and related large embayments (such as the Chesapeake Bay and Puget Sound), the Gulf of Mexico, and the Caribbean Sea that belong to the United States and its territories are considered to be "coastal" and "territorial" waters; the Great Lakes are treated as a separate water entity. Rivers and bays that empty into these bodies of water are treated as "inland water" from the point beyond which they are narrower than one nautical mile across. Identification of land and inland, coastal, and territorial waters is for statistical purposes, and does not necessarily reflect legal definitions thereof.

By definition, census blocks do not include water within their boundaries; therefore, the water area of a block is always zero. Land area measurements may disagree with the information displayed on census maps and in the TIGER file because, for area measurement purposes, features identified as "intermittent water" and "glacier" are reported as land area. For this reason, it may not be possible to derive the land area for an entity by summing the land area of its component census blocks. In addition, the water area measurement reported for some geographic entities includes water that is not included in any lower-level geographic entity. Therefore, because water is contained only in a higher-level geographic entity, summing the water measurements for all the component lower-level geographic entities will not yield the water area of that higher-level entity. This occurs, for example, where water is associated with a county but is not within the legal boundary of any minor civil division, or the water is associated with a State but is not within the legal boundary of any county. Crews-of-vessels entities (see "Census Tract and Block Numbering Area" and "Block") do not encompass territory and therefore have no area measurements. ZIP Codes do not have specific boundaries, and therefore, also do not have area measurements.

The accuracy of any area measurement figure is limited by the inaccuracy inherent in (1) the location and shape of the various boundary features in the data base, and (2) rounding affecting the last digit in all operations that compute and/or sum the area measurements.

BLOCK

Census blocks are small areas bounded on all sides by visible features such as streets, roads, streams, and railroad tracks, and by invisible boundaries such as city, town, township, and county limits, property lines, and short, imaginary extensions of streets and roads.

Tabulation blocks, used in census data products, are in most cases the same as collection blocks, used in the census enumeration. In some cases, collection blocks have been "split" into two or more parts required for data tabulations. Tabulation blocks do not cross the boundaries of counties, county subdivisions, places, census tracts or block numbering areas, American

Indian and Alaska Native areas, congressional districts, voting districts, urban or rural areas, or urbanized areas. The 1990 census is the first for which the entire United States and its possessions are block-numbered.

Blocks are numbered uniquely within each census tract or BNA. A block is identified by a three-digit number, sometimes with a single alphabetical suffix. Block numbers with suffixes generally represent collection blocks that were "split" in order to identify separate geographic entities that divide the original block. For example, when a city limit runs through data collection block 101, the data for the portion inside the city is tabulated in block 101A and the portion outside, in block 101B. A block number with the suffix "Z" represents a "crews-of-vessels" entity for which the Census Bureau tabulates data, but that does not represent a true geographic area; such a block is shown on census maps associated with an anchor symbol and a census tract or block numbering area with a .99 suffix.

BLOCK GROUP (BG)

Geographic Block Group

A geographic block group (BG) is a cluster of blocks having the same first digit of their three-digit identifying numbers within a census tract or block numbering area (BNA). For example, BG 3 within a census tract or BNA includes all blocks numbered between 301 and 397. In most cases, the numbering involves substantially fewer than 97 blocks. Geographic BG's never cross census tract or BNA boundaries, but may cross the boundaries of county subdivisions, places, American Indian and Alaska Native areas, urbanized areas, voting districts, and congressional districts. BG's generally contain between 250 and 550 housing units, with the ideal size being 400 housing units.

Tabulation Block Group

In the data tabulations, a geographic BG may be split to present data for every unique combination of county subdivision, place, American Indian and Alaska Native area, urbanized area, voting district, urban/rural and congressional district shown in the data product; for example, if BG 3 is partly in a city and partly outside the city, there will be separate tabulated records for each portion of BG 3. BG's are used in tabulating decennial census data nationwide in the 1990 census, in all block-numbered areas in the 1980 census, and in Tape Address Register (TAR) areas in the 1970 census. For purposes of data presentation, BG's are a substitute for the enumeration districts (ED's) used for reporting data in many parts of the United States for the 1970 and 1980 censuses, and in all areas for pre-1970 censuses.

BOUNDARY CHANGES

The boundaries of some counties, county subdivisions, American Indian and Alaska Native areas, and many incorporated places, changed between those reported for the 1980 census and January 1, 1990. Boundary changes to legal entities result from:

1. Annexations to or detachments from legally established governmental units.
2. Mergers or consolidations of two or more governmental units.
3. Establishment of new governmental units.
4. Disincorporations or disorganizations of existing governmental units.
5. Changes in treaties and Executive Orders.

The historical counts shown for counties, county subdivisions, and places are not updated for such changes, and thus reflect the population and housing units in the area as delineated at each census. Information on boundary changes reported between the 1980 and 1990 censuses for counties, county subdivisions, and incorporated places is presented in the "User Notes" section of the technical documentation of Summary Tape Files 1 and 3, and in the 1990 CPH-2, *Population and Housing Unit Counts* printed reports. For information on boundary changes for such areas in the decade preceding other decennial censuses, see the *Number of Inhabitants* reports for each census. Boundary changes are not reported for some areas, such as census designated places and block groups.

CENSUS REGION AND CENSUS DIVISION

Census Division

Census divisions are groupings of States that are subdivisions of the four census regions. There are nine divisions, which the Census Bureau adopted in 1910 for the presentation of data. The regions, divisions, and their constituent States are:

Northeast Region

New England Division:

Maine, New Hampshire, Vermont, Massachusetts, Rhode Island, Connecticut

Middle Atlantic Division:

New York, New Jersey, Pennsylvania

Midwest Region

East North Central Division:

Ohio, Indiana, Illinois, Michigan, Wisconsin

West North Central Division:

Minnesota, Iowa, Missouri, North Dakota, South Dakota, Nebraska, Kansas

South Region

South Atlantic Division:

Delaware, Maryland, District of Columbia, Virginia, West Virginia, North Carolina, South Carolina, Georgia, Florida

East South Central Division:

Kentucky, Tennessee, Alabama, Mississippi

West South Central Division:

Arkansas, Louisiana, Oklahoma, Texas

West Region

Mountain Division:

Montana, Idaho, Wyoming, Colorado, New Mexico, Arizona, Utah, Nevada

Pacific Division:

Washington, Oregon, California, Alaska, Hawaii

Census Region

Census regions are groupings of States that subdivide the United States for the presentation of data. There are four regions—Northeast, Midwest, South, and West. Each of the four census regions is divided into two or more census divisions. Prior to 1984, the Midwest region was named the North Central region. From 1910, when census regions were established, through the 1940's, there were three regions—North, South, and West.

CENSUS TRACT AND BLOCK NUMBERING AREA

Block Numbering Area (BNA)

Block numbering areas (BNA's) are small statistical subdivisions of a county for grouping and numbering blocks in nonmetropolitan counties where local census statistical areas committees have not established census tracts. State agencies and the Census Bureau delineated BNA's for the 1990 census, using guidelines similar to those for the delineation of census tracts. BNA's do not cross county boundaries.

BNA's are identified by a four-digit basic number and may have a two-digit suffix; for example, 9901.07. The decimal point separating the four-digit basic BNA number from the two-digit suffix is shown in printed reports, in microfiche, and on census maps; in machine-readable files, the decimal point is implied. Many BNA's do not have a suffix; in such cases, the suffix field is left blank in all data products. BNA numbers range from 9501 through 9989.99, and are unique within a county (numbers in the range of 0001 through 9499.99 denote a census tract). The suffix .99 identifies a BNA that was populated entirely by persons aboard one or more civilian or military ships. A "crews-of-vessels" BNA appears on census maps only as an anchor symbol with its BNA number (and block numbers on maps showing block numbers); the BNA relates to the ships associated with the onshore BNA's having the same four-digit basic number. Suffixes in the range .80 through .98 usually identify BNA's that either were revised or were created during the 1990 census data collection activities. Some of these revisions produced BNA's that have extremely small land area and may have little or no population or housing. For data analysis, such a BNA can be summarized with an adjacent BNA.

Census Tract

Census tracts are small, relatively permanent statistical subdivisions of a county. Census tracts are delineated for all metropolitan areas (MA's) and other densely populated counties by local census statistical areas committees following Census Bureau guidelines (more than 3,000 census tracts have been established in 221 counties outside MA's). Six States (California, Connecticut, Delaware, Hawaii, New Jersey, and Rhode Island) and the District of Columbia are covered entirely by census tracts. Census tracts usually have between 2,500 and 8,000 persons and, when first delineated, are designed to be homogeneous with respect to population characteristics, economic status, and living conditions. Census tracts do not cross county boundaries. The spatial size of census tracts varies widely depending on the density of settlement. Census tract boundaries are delineated with the intention of being maintained over a long time so that statistical comparisons can be made from census to census. However, physical changes in street patterns caused by highway construction, new development, etc., may require occasional revisions; census tracts occasionally are split due to large population growth, or combined as a result of substantial population decline. Census tracts are referred to as "tracts" in all 1990 data products.

Census tracts are identified by a four-digit basic number and may have a two-digit suffix; for example, 6059.02. The decimal point separating the four-digit basic tract number from the two-digit suffix is shown in printed reports, in microfiche, and on census maps; in machine-readable files, the decimal point is implied. Many census tracts do not have a suffix; in such cases, the suffix field is left blank in all data products. Leading zeros in a census tract number (for example, 002502) are shown only on machine-readable files.

Census tract numbers range from 0001 through 9499.99 and are unique within a county (numbers in the range of 9501 through 9989.99 denote a block numbering area). The suffix .99 identifies a census tract that was populated entirely by persons aboard one or more civilian or military ships. A "crews-of-vessels" census tract appears on census maps only as an anchor

symbol with its census tract number (and block numbers on maps showing block numbers). These census tracts relate to the ships associated with the onshore census tract having the same four-digit basic number. Suffixes in the range .80 through .98 usually identify census tracts that either were revised or were created during the 1990 census data collection activities. Some of these revisions may have resulted in census tracts that have extremely small land area and may have little or no population or housing. For data analysis, such a census tract can be summarized with an adjacent census tract.

CONGRESSIONAL DISTRICT (CD)

Congressional districts (CD's) are the 435 areas from which persons are elected to the U.S. House of Representatives. After the apportionment of congressional seats among the States, based on census population counts, each State is responsible for establishing CD's for the purpose of electing representatives. Each CD is to be as equal in population to all other CD's in the State as practicable, based on the decennial census counts.

The CD's that were in effect on January 1, 1990 were those of the 101st Congress. Data on the 101st Congress appear in an early 1990 census data product (Summary Tape File 1A). The CD's of the 101st Congress are the same as those in effect for the 102nd Congress. CD's of the 103rd Congress, reflecting redistricting based on the 1990 census, are summarized in later 1990 data products (STF's 1D and 3D, and 1990 CPH-4, *Population and Housing Characteristics for Congressional Districts of the 103rd Congress* printed reports).

COUNTY

The primary political divisions of most States are termed "counties." In Louisiana, these divisions are known as "parishes." In Alaska, which has no counties, the county equivalents are the organized "boroughs" and the "census areas" that are delineated for statistical purposes by the State of Alaska and the Census Bureau. In four States (Maryland, Missouri, Nevada, and Virginia), there are one or more cities that are independent of any county organization and thus constitute primary divisions of their States. These cities are known as "independent cities" and are treated as equivalent to counties for statistical purposes. That part of Yellowstone National Park in Montana is treated as a county equivalent. The District of Columbia has no primary

Each county and county equivalent is assigned a three-digit FIPS code that is unique within State. These codes are assigned in alphabetical order of county or county equivalent within State, except for the independent cities, which follow the listing of counties.

COUNTY SUBDIVISION

County subdivisions are the primary subdivisions of counties and their equivalents for the reporting of decennial census data. They include census county divisions, census subareas, minor civil divisions, and unorganized territories.

Each county subdivision is assigned a three-digit census code in alphabetical order within county and a five-digit FIPS code in alphabetical order within State.

Census County Division (CCD)

Census county divisions (CCD's) are subdivisions of a county that were delineated by the Census Bureau, in cooperation with State officials and local census statistical areas committees, for statistical purposes. CCD's were established in 21 States where there are no legally established minor civil divisions (MCD's), where the MCD's do not have governmental or administrative purposes, where the boundaries of the MCD's change frequently, and/or where the MCD's are not generally known to the public. CCD's have no legal functions, and are not governmental units.

The boundaries of CCD's usually are delineated to follow visible features, and in most cases coincide with census tract or block numbering area boundaries. The name of each CCD is based on a place, county, or well-known local name that identifies its location. CCD's have been established in the following 21 States: Alabama, Arizona, California, Colorado, Delaware, Florida, Georgia, Hawaii, Idaho, Kentucky, Montana, Nevada, New Mexico, Oklahoma, Oregon, South Carolina, Tennessee, Texas, Utah, Washington, and Wyoming. For the 1980 census, the county subdivisions recognized for Nevada were MCD's.

Census Subarea (Alaska)

Census subareas are statistical subdivisions of boroughs and census areas (county equivalents) in Alaska. Census subareas were delineated cooperatively by the State of Alaska and the Census Bureau. The census subareas, identified first in 1980, replaced the various types of subdivisions used in the 1970 census.

Minor Civil Division (MCD)

Minor civil divisions (MCD's) are the primary political or administrative divisions of a county. MCD's represent

tions, assessment districts, boroughs, election districts, gores, grants, magisterial districts, parish governing authority districts, plantations, precincts, purchases, supervisors' districts, towns, and townships. In some States, all or some incorporated places are not located in any

MCD and thus serve as MCD's in their own right. In other States, incorporated places are subordinate to (part of) the MCD's in which they are located, or the pattern is mixed—some incorporated places are independent of MCD's and others are subordinate to one or more MCD's.

The Census Bureau recognizes MCD's in the following 28 States: Arkansas, Connecticut, Illinois, Indiana, Iowa, Kansas, Louisiana, Maine, Maryland, Massachusetts, Michigan, Minnesota, Mississippi, Missouri, Nebraska, New Hampshire, New Jersey, New York, North Carolina, North Dakota, Ohio, Pennsylvania, Rhode Island, South Dakota, Vermont, Virginia, West Virginia, and Wisconsin. The District of Columbia has no primary divisions, and the entire area is considered equivalent to an MCD for statistical purposes.

The MCD's in 12 selected States (Connecticut, Maine, Massachusetts, Michigan, Minnesota, New Hampshire, New Jersey, New York, Pennsylvania, Rhode Island, Vermont, and Wisconsin) also serve as general-purpose local governments. The Census Bureau presents data for these MCD's in all data products in which it provides data for places.

Unorganized Territory (unorg.)

In nine States (Arkansas, Iowa, Kansas, Louisiana, Maine, Minnesota, North Carolina, North Dakota, and South Dakota), some counties contain territory that is not included in an MCD recognized by the Census Bureau. Each separate area of unorganized territory in these States is recognized as one or more separate county subdivisions for census purposes. Each unorganized territory is given a descriptive name, followed by the designation "unorg."

GEOGRAPHIC CODE

Geographic codes are shown primarily on machine-readable data products, such as computer tape and compact disc-read only memory (CD-ROM), but also appear on other products such as microfiche; they also are shown on some census maps. Codes are identified as "census codes" only if there is also a Federal Information Processing Standards (FIPS) code for the same geographic entity. A code that is not identified as either "census" or "FIPS" is usually a census code for which there is no FIPS equivalent, or for which the Census Bureau does not use the FIPS code. The exceptions, which use only the FIPS code in census products, are county, congressional district, and metropolitan area (that is, metropolitan statistical area, consolidated metropolitan statistical area, and primary metropolitan statistical area).

Census Code

Census codes are assigned for a variety of geographic entities, including American Indian and Alaska Native area, census division, census region, county subdivision, place, State, urbanized area, and voting district. The structure, format, and meaning of census codes appear in the 1990 census *Geographic Identification Code Scheme;* in the data dictionary portion of the technical documentation for summary tape files, CD-ROM's, and microfiche.

Federal Information Processing Standards (FIPS) Code

Federal Information Processing Standards (FIPS) codes are assigned for a variety of geographic entities, including American Indian and Alaska Native area, congressional district, county, county subdivision, metropolitan area, place, and State. The structure, format, and meaning of FIPS codes used in the census are shown in the 1990 census *Geographic Identification Code Scheme;* in the data dictionary portion of the technical documentation for summary tape files, CD-ROM's, and microfiche.

The objective of the FIPS codes is to improve the use of data resources of the Federal Government and avoid unnecessary duplication and incompatibilities in the collection, processing, and dissemination of data. More information about FIPS and FIPS code documentation is available from the National Technical Information Service, Springfield, VA 22161.

United States Postal Service (USPS) Code

United States Postal Service (USPS) codes for States are used in all 1990 data products. The codes are two-character alphabetic abbreviations. These codes are the same as the FIPS two-character alphabetic abbreviations.

GEOGRAPHIC PRESENTATION

Hierarchical Presentation

A hierarchical geographic presentation shows the geographic entities in a superior/subordinate structure in census products. This structure is derived from the legal, administrative, or areal relationships of the entities. The hierarchical structure is depicted in report tables by means of indentation, and is explained for machine-readable media in the discussion of file structure in the geographic coverage portion of the abstract in the technical documentation. An example of hierarchical presentation is the "standard census geographic hierarchy": block, within block group, within census tract or block numbering area, within place, within county subdivision, within county, within State, within division, within region, within the United States. Graphically, this is shown as:

United States
  Region
    Division
      State
        County
          County subdivision
            Place (or part)
              Census tract/ block numbering area
                (or part)
                Block group (or part)
                  Block

Inventory Presentation

An inventory presentation of geographic entities is one in which all entities of the same type are shown in alphabetical or code sequence, without reference to their hierarchical relationships. Generally, an inventory presentation shows totals for entities that may be split in a hierarchical presentation, such as place, census tract/ block numbering area, or block group. An example of a series of inventory presentations is: State, followed by all the counties in that State, followed by all the places in that State. Graphically, this is shown as:

State

County "A"
County "B"
County "C"

Place "X"
Place "Y"
Place "Z"

HISTORICAL COUNTS

Historical counts for total population and total housing units are shown in the 1990 CPH-2, *Population and Housing Unit Counts* report series. As in past censuses, the general rule for presenting historical data for States, counties, county subdivisions, and places is to show historical counts only for single, continually existing entities. Stated another way, if an entity existed for both the current and preceding censuses, the tables show counts for the preceding censuses. Included in this category are entities of the same type (county, county subdivision, place) even if they had changed their names. Also included are entities that merged, but only if the new entity retained the name of one of the merged entities. The historical counts shown are for each entity as it was bounded at each census.

In cases where an entity was formed since a preceding census, such as a newly incorporated place or a newly organized township, the symbol three dots "..." is shown for earlier censuses. The three-dot symbol also is shown for those parts of a place that have extended into an additional county or county subdivision through annexation or other revision of boundaries since the preceding census.

In a few cases, changes in the boundaries of county subdivisions caused a place to be split into two or more parts, or to be split differently than in the preceding census. If historical counts for the parts of the place as currently split did not appear in a preceding census, "(NA)" is shown for the place in each county subdivision; however, the historical population and housing unit counts of the place appear in tables that show the entire place. For counties, county subdivisions, and places formed since January 1, 1980, 1980 census population and housing unit counts in the 1990 territory are reported in the geographic change notes included in the "User Notes" text section of 1990 CPH-2, *Population and Housing Unit Counts*, and in the technical documentation of Summary Tape Files 1 and 3.

In some cases, population and housing unit counts for individual areas were revised since publication of the 1980 reports (indicated by the prefix "r"). In a number of tables of 1990 CPH-2, *Population and Housing Unit Counts*, 1980 counts are shown for aggregations of individual areas, such as the number, population, and housing unit counts of places in size groups, or urban and rural distributions. Revisions of population and housing unit counts for individual areas were not applied to the various aggregations. Therefore, it may not be possible to determine the individual areas in a given aggregation using the historical counts; conversely, the sum of the counts shown for individual areas may not agree with the aggregation.

INTERNAL POINT

An internal point is a set of geographic coordinates (latitude and longitude) that is located within a specified geographic entity. A single point is identified for each entity; for many entities, this point represents the approximate geographic center of that entity. If the shape of the entity caused this point to be located outside the boundaries of the entity, it is relocated from the center so that it is within the entity. If the internal point for a block falls in a water area, it is relocated to a land area within the block. On machine-readable products, internal points are shown to six decimal places; the decimal point is implied.

METROPOLITAN AREA (MA)

The general concept of a metropolitan area (MA) is one of a large population nucleus, together with adjacent communities that have a high degree of economic and social integration with that nucleus. Some MA's are defined around two or more nuclei.

The MA classification is a statistical standard, developed for use by Federal agencies in the production, analysis, and publication of data on MA's. The MA's are designated and defined by the Federal Office of Management and Budget, following a set of official published standards. These standards were developed by

the interagency Federal Executive Committee on Metropolitan Areas, with the aim of producing definitions that are as consistent as possible for all MA's nationwide.

Each MA must contain either a place with a minimum population of 50,000 or a Census Bureau-defined urbanized area and a total MA population of at least 100,000 (75,000 in New England). An MA comprises one or more central counties. An MA also may include one or more outlying counties that have close economic and social relationships with the central county. An outlying county must have a specified level of commuting to the central counties and also must meet certain standards regarding metropolitan character, such as population density, urban population, and population growth. In New England, MA's are composed of cities and towns rather than whole counties.

The territory, population, and housing units in MA's are referred to as "metropolitan." The metropolitan category is subdivided into "inside central city" and "outside central city." The territory, population, and housing units located outside MA's are referred to as "nonmetropolitan." The metropolitan and nonmetropolitan classification cuts across the other hierarchies; for example, there is generally both urban and rural territory within both metropolitan and nonmetropolitan areas.

To meet the needs of various users, the standards provide for a flexible structure of metropolitan definitions that classify an MA either as a metropolitan statistical area (MSA) or as a consolidated metropolitan statistical area (CMSA) that is divided into primary metropolitan statistical areas (PMSA's). Documentation of the MA standards and how they are applied is available from the Secretary, Federal Executive Committee on Metropolitan Areas, Population Division, U.S. Bureau of the Census, Washington, DC 20233.

Central City

In each MSA and CMSA, the largest place and, in some cases, additional places are designated as "central cities" under the official standards. A few PMSA's do not have central cities. The largest central city and, in some cases, up to two additional central cities are included in the title of the MA; there also are central cities that are not included in an MA title. An MA central city does not include any part of that city that extends outside the MA boundary.

Consolidated and Primary Metropolitan Statistical Area (CMSA and PMSA)

If an area that qualifies as an MA has more than one million persons, primary metropolitan statistical areas (PMSA's) may be defined within it. PMSA's consist of a large urbanized county or cluster of counties that demonstrates very strong internal economic and social links, in addition to close ties to other portions of the larger area. When PMSA's are established, the larger area of which they are component parts is designated a consolidated metropolitan statistical area (CMSA).

Metropolitan Statistical Area (MSA)

Metropolitan statistical areas (MSA's) are relatively freestanding MA's and are not closely associated with other MA's. These areas typically are surrounded by nonmetropolitan counties.

Metropolitan Area Title and Code

The title of an MSA contains the name of its largest central city and up to two additional city names, provided that the additional places meet specified levels of population, employment, and commuting. Generally, a city with a population of 250,000 or more is in the title, regardless of other criteria.

The title of a PMSA may contain up to three place names, as determined above, or up to three county names, sequenced in order of population. A CMSA title also may include up to three names, the first of which generally is the most populous central city in the area. The second name may be the first city or county name in the most populous remaining PMSA; the third name may be the first city or county name in the next most populous PMSA. A regional designation may be substituted for the second and/ or third names in a CMSA title if such a designation is supported by local opinion and is deemed to be unambiguous and suitable by the Office of Management and Budget.

The titles for all MA's also contain the name of each State in which the area is located. Each metropolitan area is assigned a four-digit FIPS code, in alphabetical order nationwide. If the fourth digit of the code is a "2," it identifies a CMSA. Additionally, there is a separate set of two-digit codes for CMSA's, also assigned alphabetically.

OUTLYING AREAS OF THE UNITED STATES

The Census Bureau treats the outlying areas as the statistical equivalents of States for the 1990 census. The outlying areas are American Samoa, Guam, the Commonwealth of the Northern Mariana Islands (Northern Mariana Islands), Republic of Palau (Palau), Puerto Rico, and the Virgin Islands of the United States (Virgin Islands). Geographic definitions specific to each outlying area are shown in appendix A of the text in the data products for each area.

PLACE

Places, for the reporting of decennial census data, include census designated places and incorporated places. Each place is assigned a four-digit census code

that is unique within State. Each place is also assigned a five-digit FIPS code that is unique within State. Both the census and FIPS codes are assigned based on alphabetical order within State. Consolidated cities (see below) are assigned a one-character alphabetical census code that is unique nationwide and a five-digit FIPS code that is unique within State.

Census Designated Place (CDP)

Census designated places (CDP's) are delineated for the decennial census as the statistical counterparts of incorporated places. CDP's comprise densely settled concentrations of population that are identifiable by name, but are not legally incorporated places. Their boundaries, which usually coincide with visible features or the boundary of an adjacent incorporated place, have no legal status, nor do these places have officials elected to serve traditional municipal functions. CDP boundaries may change with changes in the settlement pattern; a CDP with the same name as in previous censuses does not necessarily have the same boundaries.

Beginning with the 1950 census, the Census Bureau, in cooperation with State agencies and local census statistical areas committees, has identified and delineated boundaries for CDP's. In the 1990 census, the name of each such place is followed by "CDP." In the 1980 census, "(CDP)" was used; in 1970, 1960, and 1950 censuses, these places were identified by "(U)," meaning "unincorporated place."

To qualify as a CDP for the 1990 census, an unincorporated community must have met the following criteria:

1. In all States except Alaska and Hawaii, the Census Bureau uses three population size criteria to designate a CDP. These criteria are:

   a. 1,000 or more persons if outside the boundaries of an urbanized area (UA) delineated for the 1980 census or a subsequent special census.

   b. 2,500 or more persons if inside the boundaries of a UA delineated for the 1980 census or a subsequent special census.

   c. 250 or more persons if outside the boundaries of a UA delineated for the 1980 census or a subsequent special census, and within the official boundaries of an American Indian reservation recognized for the 1990 census.

2. In Alaska, 25 or more persons if outside a UA, and 2,500 or more persons if inside a UA delineated for the 1980 census or a subsequent special census.

3. In Hawaii, 300 or more persons, regardless of whether the community is inside or outside a UA.

For the 1990 census, CDP's qualified on the basis of the population counts prepared for the 1990 Postcensus Local Review Program. Because these counts were subject to change, a few CDP's may have final population counts lower than the minimums shown above.

Hawaii is the only State with no incorporated places recognized by the Bureau of the Census. All places shown for Hawaii in the data products are CDP's. By agreement with the State of Hawaii, the Census Bureau does not show data separately for the city of Honolulu, which is coextensive with Honolulu County.

Consolidated City

A consolidated government is a unit of local government for which the functions of an incorporated place and its county or minor civil division (MCD) have merged. The legal aspects of this action may result in both the primary incorporated place and the county or MCD continuing to exist as legal entities, even though the county or MCD performs few or no governmental functions and has few or no elected officials. Where this occurs, and where one or more other incorporated places in the county or MCD continue to function as separate governments, even though they have been included in the consolidated government, the primary incorporated place is referred to as a "consolidated city."

The data presentation for consolidated cities varies depending upon the geographic presentation. In hierarchical presentations, consolidated cities are not shown. These presentations include the semi-independent places and the "consolidated city (remainder)." Where the consolidated city is coextensive with a county or county subdivision, the data shown for those areas in hierarchical presentations are equivalent to those for the consolidated government.

For inventory geographic presentations, the consolidated city appears at the end of the listing of places. The data for the consolidated city include places that are part of the consolidated city. The "consolidated city (remainder)" is the portion of the consolidated government minus the semi-independent places, and is shown in alphabetical sequence with other places.

In summary presentations by size of place, the consolidated city is not included. The places semi-independent of consolidated cities are categorized by their size, as is the "consolidated city (remainder)."

Each consolidated city is assigned a one-character alphabetic census code. Each consolidated city also is assigned a five-digit FIPS code that is unique within State. The semi-independent places and the "consolidated city (remainder)" are assigned a four-digit census code and a five-digit FIPS place code that are unique within State. Both the census and FIPS codes are assigned based on alphabetical order within State.

Incorporated Place

Incorporated places recognized in 1990 census data products are those reported to the Census Bureau as legally in existence on January 1, 1990 under the laws of their respective States as cities, boroughs, towns, and villages, with the following exceptions: the towns in the New England States, New York, and Wisconsin, and the boroughs in New York are recognized as minor civil divisions for census purposes; the boroughs in Alaska are county equivalents.

POPULATION OR HOUSING UNIT DENSITY

Population or housing unit density is computed by dividing the total population or housing units of a geographic unit (for example, United States, State, county, place) by its land area measured in square kilometers or square miles. Density is expressed as both "persons (or housing units) per square kilometer" and "persons (or housing units) per square mile" of land area in 1990 census printed reports.

STATE

States are the primary governmental divisions of the United States. The District of Columbia is treated as a statistical equivalent of a State for census purposes. The four census regions, nine census divisions, and their component States are shown under "CENSUS REGION AND CENSUS DIVISION" in this appendix.

The Census Bureau treats the outlying areas as State equivalents for the 1990 census. The outlying areas are American Samoa, Guam, the Northern Mariana Islands, Palau, Puerto Rico, and the Virgin Islands of the United States. Geographic definitions specific to each outlying area are shown in appendix A in the data products for each area.

Each State and equivalent is assigned a two-digit numeric Federal Information Processing Standards (FIPS) code in alphabetical order by State name, followed by the outlying area names. Each State and equivalent area also is assigned a two-digit census code. This code is assigned on the basis of the geographic sequence of each State within each census division; the first digit of the code is the code for the respective division. Puerto Rico, the Virgin Islands, and the outlying areas of the Pacific are assigned "0" as the division code. Each State and equivalent area also is assigned the two-letter FIPS/United States Postal Service (USPS) code.

In 12 selected States (Connecticut, Maine, Massachusetts, Michigan, Minnesota, New Hampshire, New Jersey, New York, Pennsylvania, Rhode Island, Vermont, and Wisconsin), the minor civil divisions also serve as general-purpose local governments. The Census Bureau presents data for these minor civil divisions in all data products in which it provides data for places.

TIGER

TIGER is an acronym for the new digital (computer-readable) geographic data base that automates the mapping and related geographic activities required to support the Census Bureau's census and survey programs. The Census Bureau developed the Topologically Integrated Geographic Encoding and Referencing (TIGER) System to automate the geographic support processes needed to meet the major geographic needs of the 1990 census: producing the cartographic products to support data collection and map publication, providing the geographic structure for tabulation and publication of the collected data, assigning residential and employer addresses to their geographic location and relating those locations to the Census Bureau's geographic units, and so forth. The content of the TIGER data base is made available to the public through a variety of "TIGER Extract" files that may be obtained from the Data User Services Division, U.S. Bureau of the Census, Washington, DC 20233.

UNITED STATES

The United States comprises the 50 States and the District of Columbia. In addition, the Census Bureau treats the outlying areas as statistical equivalents of States for the 1990 census. The outlying areas include American Samoa, Guam, the Northern Mariana Islands, Palau, Puerto Rico, and the Virgin Islands.

URBAN AND RURAL

The Census Bureau defines "urban" for the 1990 census as comprising all territory, population, and housing units in urbanized areas and in places of 2,500 or more persons outside urbanized areas. More specifically, "urban" consists of territory, persons, and housing units in:

1. Places of 2,500 or more persons incorporated as cities, villages, boroughs (except in Alaska and New York), and towns (except in the six New England States, New York, and Wisconsin), but excluding the rural portions of "extended cities."
2. Census designated places of 2,500 or more persons.
3. Other territory, incorporated or unincorporated, included in urbanized areas.

Territory, population, and housing units not classified as urban constitute "rural." In the 100-percent data products, "rural" is divided into "places of less than 2,500" and "not in places." The "not in places" category comprises "rural" outside incorporated and census designated places and the rural portions of extended

cities. In many data products, the term "other rural" is used; "other rural" is a residual category specific to the classification of the rural in each data product.

In the sample data products, rural population and housing units are subdivided into "rural farm" and "rural nonfarm." "Rural farm" comprises all rural households and housing units on farms (places from which $1,000 or more of agricultural products were sold in 1989); "rural nonfarm" comprises the remaining rural.

The urban and rural classification cuts across the other hierarchies; for example, there is generally both urban and rural territory within both metropolitan and nonmetropolitan areas.

In censuses prior to 1950, "urban" comprised all territory, persons, and housing units in incorporated places of 2,500 or more persons, and in areas (usually minor civil divisions) classified as urban under special rules relating to population size and density. The definition of urban that restricted itself to incorporated places having 2,500 or more persons excluded many large, densely settled areas merely because they were not incorporated. Prior to the 1950 census, the Census Bureau attempted to avoid some of the more obvious omissions by classifying selected areas as "urban under special rules." Even with these rules, however, many large, closely built-up areas were excluded from the urban category.

To improve its measure of urban territory, population, and housing units, the Census Bureau adopted the concept of the urbanized area and delineated boundaries for unincorporated places (now, census designated places) for the 1950 census. Urban was defined as territory, persons, and housing units in urbanized areas and, outside urbanized areas, in all places, incorporated or unincorporated, that had 2,500 or more persons. With the following three exceptions, the 1950 census definition of urban has continued substantially unchanged. First, in the 1960 census (but not in the 1970, 1980, or 1990 censuses), certain towns in the New England States, townships in New Jersey and Pennsylvania, and Arlington County, Virginia, were designated as urban. However, most of these "special rule" areas would have been classified as urban anyway because they were included in an urbanized area or in an unincorporated place of 2,500 or more persons. Second, "extended cities" were identified for the 1970, 1980, and 1990 censuses. Extended cities primarily affect the figures for urban and rural territory (area), but have very little effect on the urban and rural population and housing units at the national and State levels—although for some individual counties and urbanized areas, the effects have been more evident. Third, changes since the 1970 census in the criteria for defining urbanized areas have permitted these areas to be defined around smaller centers.

Documentation of the urbanized area and extended city criteria is available from the Chief, Geography Division, U.S. Bureau of the Census, Washington, DC 20233.

Extended City

Since the 1960 census, there has been a trend in some States toward the extension of city boundaries to include territory that is essentially rural in character. The classification of all the population and living quarters of such places as urban would include in the urban designation territory, persons, and housing units whose environment is primarily rural. For the 1970, 1980, and 1990 censuses, the Census Bureau identified as rural such territory and its population and housing units for each extended city whose closely settled area was located in an urbanized area. For the 1990 census, this classification also has been applied to certain places outside urbanized areas.

In summary presentations by size of place, the urban portion of an extended city is classified by the population of the entire place; the rural portion is included in "other rural."

URBANIZED AREA (UA)

The Census Bureau delineates urbanized areas (UA's) to provide a better separation of urban and rural territory, population, and housing in the vicinity of large places. A UA comprises one or more places ("central place") and the adjacent densely settled surrounding territory ("urban fringe") that together have a minimum of 50,000 persons. The urban fringe generally consists of contiguous territory having a density of least 1,000 persons per square mile. The urban fringe also includes outlying territory of such density if it was connected to the core of the contiguous area by road and is within 1 1/2 road miles of that core, or within 5 road miles of the core but separated by water or other undevelopable territory. Other territory with a population density of fewer than 1,000 people per square mile is included in the urban fringe if it eliminates an enclave or closes an indentation in the boundary of the urbanized area. The population density is determined by (1) outside of a place, one or more contiguous census blocks with a population density of at least 1,000 persons per square mile or (2) inclusion of a place containing census blocks that have at least 50 percent of the population of the place and a density of at least 1,000 persons per square mile. The complete criteria are available from the Chief, Geography Division, U.S. Bureau of the Census, Washington, DC 20233.

Urbanized Area Central Place

One or more central places function as the dominant centers of each UA. The identification of a UA central place permits the comparison of this dominant center

with the remaining territory in the UA. There is no limit on the number of central places, and not all central places are necessarily included in the UA title. UA central places include:

1. Each place entirely (or partially, if the place is an extended city) within the UA that is a central city of a metropolitan area (MA).
2. If the UA does not contain an MA central city or is located outside of an MA, the central place(s) is determined by population size.

Urbanized Area Title and Code

The title of a UA identifies those places that are most important within the UA; it links the UA to the encompassing MA, where appropriate. If a single MA includes most of the UA, the title and code of the UA generally are the same as the title and code of the MA. If the UA is not mostly included in a single MA, if it does not include any place that is a central city of the encompassing MA, or if it is not located in an MA, the Census Bureau uses the population size of the included places, with a preference for incorporated places, to determine the UA title. The name of each State in which the UA is located also is in each UA title.

The numeric code used to identify each UA is the same as the code for the mostly encompassing MA (including CMSA and PMSA). If MA title cities represent multiple UA's, or the UA title city does not correspond to the first name of an MA title, the Census Bureau assigns a code based on the alphabetical sequence of the UA title in relationship to the other UA and MA titles.

VOTING DISTRICT (VTD)

A voting district (VTD) is any of a variety of types of areas (for example, election districts, precincts, wards, legislative districts) established by State and local governments for purposes of elections. For census purposes, each State participating in Phase 2 of the 1990 Census Redistricting Data Program outlined the boundaries of VTD's around groups of whole census blocks on census maps. The entities identified as VTD's are not necessarily those legally or currently established. Also, to meet the "whole block" criterion, a State may have had to adjust VTD boundaries to nearby block boundaries. Therefore, the VTD's shown on the 1990 census tapes, listings, and maps may not represent the actual VTD's in effect at the time of the census. In the 1980 census, VTD's were referred to as "election precincts."

Each VTD is assigned a four-character alphanumeric code that is unique within each county. The code "ZZZZ" is assigned to nonparticipating areas; the Census Bureau reports data for areas coded "ZZZZ."

ZIP CODE®

ZIP Codes are administrative units established by the United States Postal Service (USPS) for the distribution of mail. ZIP Codes serve addresses for the most efficient delivery of mail, and therefore generally do not respect political or census statistical area boundaries. ZIP Codes usually do not have clearly identifiable boundaries, often serve a continually changing area, are changed periodically to meet postal requirements, and do not cover all the land area of the United States. ZIP Codes are identified by five-digit codes assigned by the USPS. The first three digits identify a major city or sectional distribution center, and the last two digits generally signify a specific post office's delivery area or point. For the 1990 census, ZIP Code data are tabulated for the five-digit codes in STF 3B.

APPENDIX B. Definitions of Subject Characteristics

CONTENTS

POPULATION CHARACTERISTICS B–2

Ability to Speak English *(See Language Spoken at Home and Ability to Speak English)*
Actual Hours Worked Last Week *(See Employment Status)*
Age B–2
American Indian Tribe *(See Race)*
Ancestry B–2
Carpooling *(See Journey to Work)*
Children Ever Born *(See Fertility)*
Citizenship B–4
Civilian Labor Force *(See Employment Status)*
Class of Worker *(See Industry, Occupation, and Class of Worker)*

Disability *(See Mobility Limitation Status, see Self-Care Limitation Status, see Work Disability Status)*
Earnings in 1989 *(See Income in 1989)*
Educational Attainment B–4
Employment Status B–5
Families *(See Household Type and Relationship)*
Family Composition *(See Household Type and Relationship)*
Family Income in 1989 *(See Income in 1989)*
Family Size *(See Household Type and Relationship)*
Family Type *(See Household Type and Relationship)*
Farm Population *(See Farm Residence under Housing Characteristics)*

Fertility B–7
Foreign-Born Persons *(See Place of Birth)*
Foster Children *(See Household Type and Relationship)*
Group Quarters B–7
Hispanic Origin B–13
Household *(See Household Type and Relationship)*
Household Income in 1989 *(See Income in 1989)*
Household Language *(See Language Spoken At Home and Ability to Speak English)*
Household Size *(See Household Type and Relationship)*
Household Type and Relationship B–14

Householder *(See Household Type and Relationship)*
Income Deficit *(See Income in 1989)*
Income in 1989 ..... B–16
Income Type in 1989 *(See Income in 1989)*
Industry, Occupation, and Class of Worker B–19
Institutionalized Persons *(See Group Quarters)*
Journey to Work B–22
Labor Force Status *(See Employment Status)*
Language Spoken at Home and Ability to Speak English B–24
Linguistic Isolation *(See Language Spoken at Home and Ability to Speak English)*

Marital Status B–26
Married Couples *(See Marital Status)*
Means of Transportation to Work *(See Journey to Work)*
Migration *(See Residence in 1985)*
Mobility Limitation Status B–27
Nativity *(See Place of Birth)*
Noninstitutionalized Group Quarters *(See Group Quarters)*
Occupation *(See Industry, Occupation, and Class of Worker)*
Own Children *(See Household Type and Relationship)*
Per Capita Income *(See Income in 1989)*

Period of Military Service *(See Veteran Status)*
Persons in Family *(See Household Type and Relationship)*
Persons in Households *(See Household Type and Relationship)*
Place of Birth B–27
Place of Work *(See Journey to Work)*
Poverty Status in 1989 ..... B–28
Presence of Children *(See Household Type and Relationship)*
Private Vehicle Occupancy *(See Journey to Work)*
Race B–30
Reference Week B–32

Related Children *(See Household Type and Relationship)*
Residence in 1985 ..... B–33
School Enrollment and Labor Force Status B–34
School Enrollment and Type of School B–34
Self-Care Limitation Status B–35
Sex B–36
Spanish Origin *(See Hispanic Origin)*
Stepfamily *(See Household Type and Relationship)*
Subfamily *(See Household Type and Relationship)*
Time Leaving Home to Go to Work *(See Journey to Work)*

Travel Time to Work *(See Journey to Work)*
Type of School *(See School Enrollment and Type of School)*
Usual Hours Worked Per Week Worked in 1989 *(See Work Status in 1989)*
Veteran Status B–36
Weeks Worked in 1989 *(Work Status in 1989)*
Work Disability Status B–37
Work Status in 1989 ..... B–37
Worker *(See Employment Status, see Industry, Occupation, and Class of Worker, see Journey to Work, see Work Status in 1989)*
Workers in Family in 1989 *(See Work Status in 1989)*
Year of Entry B–38
Years of Military Service *(See Veteran Status)*

HOUSING CHARACTERISTICS B–38

Acreage B–39
Age of Structure *(See Year Structure Built)*
Agricultural Sales B–39
Bedrooms B–39
Boarded-Up Status B–40
Business on Property B–40
Condominium Fee B–40
Condominium Status B–40
Congregate Housing *(See Meals Included in Rent)*
Contract Rent B–41

Crop Sales *(See Agricultural Sales)*
Duration of Vacancy B–41
Farm Residence B–41
Gross Rent B–42
Gross Rent as a Percentage of Household Income in 1989 ..... B–42
Homeowner Vacancy Rate *(See Vacancy Status)*
House Heating Fuel B–42
Housing Units *(See Living Quarters)*
Insurance for Fire, Hazard, and Flood B–42

Kitchen Facilities B–43
Living Quarters B–38
Meals Included in Rent B–43
Mobile Home Costs B–43
Months Vacant *(See Duration of Vacancy)*
Mortgage Payment B–43
Mortgage Status B–44
Occupied Housing Units *(See Living Quarters)*
Owner-Occupied Housing Units *(See Tenure)*
Persons in Unit B–44
Persons Per Room B–44

Plumbing Facilities B–45
Poverty Status of Households in 1989 ..... B–45
Real Estate Taxes B–45
Rental Vacancy Rate *(See Vacancy Status)*
Renter-Occupied Housing Units *(See Tenure)*
Rooms B–45
Second or Junior Mortgage Payment B–46
Selected Monthly Owner Costs B–46
Selected Monthly Owner Costs as a Percentage of Household Income in 1989 ..... B–46

CONTENTS—Con.

Sewage Disposal B-47
Source of Water B-47
Telephone in Housing Unit B-47
Tenure B-47
Type of Structure *(See Units in Structure)*
Units in Structure B-48
Usual Home Elsewhere B-48
Utilities B-48
Vacancy Status B-49
Vacant Housing Units *(See Living Quarters)*
Value B-49
Vehicles Available B-50
Year Householder Moved Into Unit B-50
Year Structure Built B-50

DERIVED MEASURES B-51

Interpolation B-51
Mean B-51
Median B-51
Percentages, Rates, and Ratios B-51
Quartile B-51

POPULATION CHARACTERISTICS

AGE

The data on age were derived from answers to questionnaire item 5, which was asked of all persons. The age classification is based on the age of the person in complete years as of April 1, 1990. The age response in question 5a was used normally to represent a person's age. However, when the age response was unacceptable or unavailable, a person's age was derived from an acceptable year-of-birth response in question 5b.

Data on age are used to determine the applicability of other questions for a person and to classify other characteristics in census tabulations. Age data are needed to interpret most social and economic characteristics used to plan and examine many programs and policies. Therefore, age is tabulated by single years of age and by many different groupings, such as 5-year age groups.

Some tabulations are shown by the age of the householder. These data were derived from the age responses for each householder. (For more information on householder, see the discussion under "Household Type and Relationship.")

Median Age—This measure divides the age distribution into two equal parts: one-half of the cases falling below the median value and one-half above the value. Generally, median age is computed on the basis of more detailed age intervals than are shown in some census publications; thus, a median based on a less detailed distribution may differ slightly from a corresponding median for the same population based on a more detailed distribution. (For more information on medians, see the discussion under "Derived Measures.")

Limitation of the Data—Counts in 1970 and 1980 for persons 100 years old and over were substantially overstated. Improvements were made in the questionnaire design, in the allocation procedures, and to the respondent instruction guide to attempt to minimize this problem for the 1990 census.

Review of detailed 1990 census information indicated that respondents tended to provide their age as of the date of completion of the questionnaire, not their age as of April 1, 1990. In addition, there may have been a tendency for respondents to round their age up if they were close to having a birthday. It is likely that approximately 10 percent of persons in most age groups are actually 1 year younger. For most single years of age, the misstatements are largely offsetting. The problem is most pronounced at age 0 because persons lost to age 1 may not have been fully offset by the inclusion of babies born after April 1, 1990 and because there may have been more rounding up to age 1 to avoid reporting age as 0 years. (Age in complete months was not collected for infants under age 1.)

The reporting of age 1 year older than age on April 1, 1990 is likely to have been greater in areas where the census data were collected later in 1990. The magnitude of this problem was much less in the three previous censuses where age was typically derived from respondent data on year of birth and quarter of birth. (For more information on the design of the age question, see the section below that discusses "Comparability.")

Comparability—Age data have been collected in every census. For the first time since 1950, the 1990 data are not available by quarter year of age. This change was made so that coded information could be obtained for both age and year of birth. In each census since 1940, the age of a person was assigned when it was not reported. In censuses before 1940, with the exception of 1880, persons of unknown age were shown as a separate category. Since 1960, assignment of unknown age has been performed by a general procedure described as "imputation." The specific procedures for imputing age have been different in each census. (For more information on imputation, see Appendix C, Accuracy of the Data.)

ANCESTRY

The data on ancestry were derived from answers to questionnaire item 13, which was asked of a sample of persons. The question was based on self-identification; the data on ancestry represent self-classification by people according to the ancestry group(s) with which they most closely identify. Ancestry refers to a person's ethnic origin or descent, "roots," or heritage or the place of birth of the person or the person's parents or ancestors before their arrival in the United States. Some ethnic identities, such as "Egyptian" or "Polish" can be traced to geographic areas outside the United States, while other ethnicities such as "Pennsylvania Dutch" or "Cajun" evolved in the United States.

The intent of the ancestry question was not to measure the degree of attachment the respondent had to a particular ethnicity. For example, a response of "Irish" might reflect total involvement in an "Irish" community or only a memory of ancestors several generations removed from the individual.

The Census Bureau coded the responses through an automated review, edit, and coding operation. The open-ended write-in ancestry item was coded by subject-matter specialists into a numeric representation using a code list containing over 1,000 categories. The 1990 code list reflects the results of the Census Bureau's own research and consultations with many ethnic experts. Many decisions were made to determine the classification of responses. These decisions affected the grouping of the tabulated data. For example, the "Assyrian" category includes both responses of "Assyrian" and "Chaldean."

The ancestry question allowed respondents to report one or more ancestry groups. While a large number of respondents listed a single ancestry, the majority of answers included more than one ethnic entry. Generally, only the first two responses reported were coded in 1990. If a response was in terms of a dual ancestry, for example, Irish-English, the person was assigned two codes, in this case one for Irish and another for English.

However, in certain cases, multiple responses such as "French Canadian," "Scotch-Irish," "Greek Cypriote," and "Black Dutch" were assigned a single code reflecting their status as unique groups. If a person reported one of these unique groups in addition to another group, for example, "Scotch-Irish English," resulting in three terms, that person received one code for the unique group ("Scotch-Irish") and another one for the remaining group ("English"). If a person reported "English Irish French," only English and Irish were coded. Certain combinations of ancestries where the ancestry group is a part of another, such as "German-Bavarian," the responses were coded as a single ancestry using the smaller group ("Bavarian"). Also, responses such as "Polish-American" or "Italian-American" were coded and tabulated as a single entry ("Polish" or "Italian").

The Census Bureau accepted "American" as a unique ethnicity if it was given alone, with an ambiguous response, or with State names. If the respondent listed any other ethnic identity such as "Italian American," generally the "American" portion of the response was not coded. However, distinct groups such as "American Indian," "Mexican American," and "African American" were coded and identified separately because they represented groups who considered themselves different from those who reported as "Indian," "Mexican," or "African," respectively.

In all tabulations, when respondents provided an unacceptable ethnic identity (for example, an uncodeable or unintelligible response such as "multi-national," "adopted," or "I have no idea"), the answer was included in "Ancestry not reported."

The tabulations on ancestry are presented using two types of data presentations—one used total persons as the base, and the other used total responses as the base. The following are categories shown in the two data presentations:

Presentation Based on Persons:

Single Ancestries Reported—Includes all persons who reported only one ethnic group. Included in this category are persons with multiple-term responses such as "Scotch-Irish" who are assigned a single code.

Multiple Ancestries Reported—Includes all persons who reported more than one group and were assigned two ancestry codes.

Ancestry Unclassified—Includes all persons who provided a response that could not be assigned an ancestry code because they provided nonsensical entries or religious responses.

Presentations Based on Responses:

Total Ancestries Reported—Includes the total number of ancestries reported and coded. If a person reported a multiple ancestry such as "French Danish," that response was counted twice in the tabulations—once in the "French" category and again in the "Danish" category. Thus, the sum of the counts in this type of presentation is not the total population but the total of all responses.

First Ancestry Reported—Includes the first response of all persons who reported at least one codeable entry. For example, in this category, the count for "Danish" would include all those who reported only Danish and those who reported Danish first and then some other group.

Second Ancestry Reported—Includes the second response of all persons who reported a multiple ancestry. Thus, the count for "Danish" in this category includes all persons who reported Danish as the second response, regardless of the first response provided.

The Census Bureau identified hundreds of ethnic groups in the 1990 census. However, it was impossible to show information for every group in all census tabulations because of space constraints. Publications such as the 1990 CP-2, *Social and Economic Characteristics* and the 1990 CPH-3, *Population and Housing Characteristics for Census Tracts and Block Numbering Areas* reports show a limited number of groups based on the number reported and the advice received from experts. A more complete distribution of groups is

presented in the 1990 Summary Tape File 4, *Supplementary Reports,* and a special subject report on ancestry. In addition, groups identified specifically in the questions on race and Hispanic origin (for example, Japanese, Laotian, Mexican, Cuban, and Spaniard), in general, are not shown separately in ancestry tabulations.

Limitation of the Data—Although some experts consider religious affiliation a component of ethnic identity, the ancestry question was not designed to collect any information concerning religion. The Bureau of the Census is prohibited from collecting information on religion. Thus, if a religion was given as an answer to the ancestry question, it was coded as an "Other" response.

Comparability—A question on ancestry was first asked in the 1980 census. Although there were no comparable data prior to the 1980 census, related information on ethnicity was collected through questions on parental birthplace, own birthplace, and language which were included in previous censuses. Unlike other census questions, there was no imputation for nonresponse to the ancestry question.

In 1990, respondents were allowed to report more than one ancestry group; however, only the first two ancestry groups identified were coded. In 1980, the Census Bureau attempted to code a third ancestry for selected triple-ancestry responses.

New categories such as "Arab" and "West Indian" were added to the 1990 question to meet important data needs. The "West Indian" category excluded "Hispanic" groups such as "Puerto Rican" and "Cuban" that were identified primarily through the question on Hispanic origin. In 1990, the ancestry group, "American" is recognized and tabulated as a unique ethnicity. In 1980, "American" was tabulated but included under the category "Ancestry not specified."

A major improvement in the 1990 census was the use of an automated coding system for ancestry responses. The automated coding system used in the 1990 census greatly reduced the potential for error associated with a clerical review. Specialists with a thorough knowledge of the subject matter reviewed, edited, coded, and resolved inconsistent or incomplete responses.

CITIZENSHIP

The data on citizenship were derived from answers to questionnaire item 9, which was asked of a sample of persons.

Citizen—Persons who indicated that they were native-born and foreign-born persons who indicated that they have become naturalized. (For more information on native and foreign born, see the discussion under "Place of Birth.")

There are four categories of citizenship: (1) born in the United States, (2) born in Puerto Rico, Guam, the Virgin Islands of the United States, or the Commonwealth of the Northern Mariana Islands, (3) born abroad of American parents, and (4) citizen by naturalization.

Naturalized Citizen—Foreign-born persons who had completed the naturalization process at the time of the census and upon whom the rights of citizenship had been conferred.

Not a Citizen—Foreign-born persons who were not citizens, including persons who had begun but not completed the naturalization process at the time of the census.

Limitation of the Data—Evaluation studies completed after previous censuses indicated that some persons may have reported themselves as citizens although they had not yet attained the status.

Comparability—Similar questions on citizenship were asked in the censuses of 1820, 1830, 1870, 1890 through 1950, 1970, and 1980. The 1980 question was asked of a sample of the foreign-born population. In 1990, both native and foreign-born persons who received the long-form questionnaire were asked to respond to the citizenship question.

EDUCATIONAL ATTAINMENT

Data on educational attainment were derived from answers to questionnaire item 12, which was asked of a sample of persons. Data are tabulated as attainment for persons 15 years old and over. Persons are classified according to the highest level of school completed or the highest degree received. The question included instructions to report the level of the previous grade attended or the highest degree received for persons currently enrolled in school. The question included response categories which allowed persons to report completing the 12th grade without receiving a high school diploma, and which instructed respondents to report as "high school graduate(s)"—persons who received either a high school diploma or the equivalent, for example, passed the Test of General Educational Development (G.E.D.), and did not attend college. (On the Military Census Report questionnaire, the lowest response category was "Less than 9th grade.")

Instructions included in the 1990 respondent instruction guide, which was mailed with the census questionnaire, further specified that schooling completed in foreign or ungraded school systems should be reported as the equivalent level of schooling in the regular American system; that vocational certificates or diplomas from vocational, trade, or business schools or colleges were not to be reported unless they were

college level degrees; and that honorary degrees were not to be reported. The instructions gave "medicine, dentistry, chiropractic, optometry, osteopathic medicine, pharmacy, podiatry, veterinary medicine, law, and theology" as examples of professional school degrees, and specifically excluded "barber school, cosmetology, or other training for a specific trade" from the professional school category. The order in which they were listed suggested that doctorate degrees were "higher" than professional school degrees, which were "higher" than master's degrees.

Persons who did not report educational attainment were assigned the attainment of a person of the same age, race or Spanish origin, and sex who resided in the same or a nearby area. Persons who filled more than one circle were edited to the highest level or degree reported.

High School Graduate or Higher—Includes persons whose highest degree was a high school diploma or its equivalent, persons who attended college or professional school, and persons who received a college, university, or professional degree. Persons who reported completing the 12th grade but not receiving a diploma are not included.

Not Enrolled, Not High School Graduate—Includes persons of compulsory school attendance age or above who were not enrolled in school and were not high school graduates; these persons may be taken to be "high school dropouts." There is no restriction on when they "dropped out" of school, and they may have never attended high school.

In prior censuses, "Median school years completed" was used as a summary measure of educational attainment. In 1990, the median can only be calculated for groups of which less than half the members have attended college. "Percent high school graduate or higher" and "Percent bachelor's degree or higher" are summary measures which can be calculated from the present data and offer quite readily interpretable measures of differences between population subgroups. To make comparisons over time, "Percent high school graduate or higher" can be calculated and "Percent bachelor's degree or higher" can be approximated with data from previous censuses.

Comparability—From 1840 to 1930, the census measured educational attainment by means of a basic literacy question. In 1940, a single question was asked on highest grade of school completed. In the censuses of 1950 through 1980, a two-part question asking highest grade of school attended and whether that grade was finished was used to construct highest grade or year of school completed. For persons who have not attended college, the response categories in the 1990 educational attainment question should produce data which are comparable to data on highest grade completed from earlier censuses.

The response categories for persons who have attended college were modified from earlier censuses because there was some ambiguity in interpreting responses in terms of the number of years of college completed. For instance, it was not clear whether "completed the fourth year of college," "completed the senior year of college," and "college graduate" were synonymous. Research conducted shortly before the census suggests that these terms were more distinct in 1990 than in earlier decades, and this change may have threatened the ability to estimate the number of "college graduates" from the number of persons reported as having completed the fourth or a higher year of college. It was even more difficult to make inferences about post-baccalaureate degrees and "Associate" degrees from highest year of college completed. Thus, comparisons of post-secondary educational attainment in this and earlier censuses should be made with great caution.

In the 1960 and subsequent censuses, persons for whom educational attainment was not reported were assigned the same attainment level as a similar person whose residence was in the same or a nearby area. In the 1940 and 1950 censuses, persons for whom educational attainment was not reported were not allocated.

EMPLOYMENT STATUS

The data on employment status were derived from answers to questionnaire items 21, 25, and 26, which were asked of a sample of persons. The series of questions on employment status was asked of all persons 15 years old and over and was designed to identify, in this sequence: (1) persons who worked at any time during the reference week; (2) persons who did not work during the reference week but who had jobs or businesses from which they were temporarily absent (excluding layoff); (3) persons on layoff; and (4) persons who did not work during the reference week, but who were looking for work during the last four weeks and were available for work during the reference week. (For more information, see the discussion under "Reference Week.")

The employment status data shown in this and other 1990 census tabulations relate to persons 16 years old and over. Some tabulations showing employment status, however, include persons 15 years old. By definition, these persons are classified as "Not in Labor Force.". In the 1940, 1950, and 1960 censuses, employment status data were presented for persons 14 years old and over. The change in the universe was made in 1970 to agree with the official measurement of the labor force as revised in January 1967 by the U.S. Department of Labor. The 1970 census was the last to show employment data for persons 14 and 15 years old.

Employed—All civilians 16 years old and over who were either (1) "at work"—those who did any work at all during the reference week as paid employees, worked in their own business or profession, worked on their own farm, or worked 15 hours or more as unpaid workers on a family farm or in a family business; or (2) were "with a job but not at work"—those who did not work during the reference week but had jobs or businesses from which they were temporarily absent due to illness, bad weather, industrial dispute, vacation, or other personal reasons. Excluded from the employed are persons whose only activity consisted of work around the house or unpaid volunteer work for religious, charitable, and similar organizations; also excluded are persons on active duty in the United States Armed Forces.

Unemployed—All civilians 16 years old and over are classified as unemployed if they (1) were neither "at work" nor "with a job but not at work" during the reference week, and (2) were looking for work during the last 4 weeks, and (3) were available to accept a job. Also included as unemployed are civilians who did not work at all during the reference week and were waiting to be called back to a job from which they had been laid off. Examples of job seeking activities are:

- Registering at a public or private employment office
- Meeting with prospective employers
- Investigating possibilities for starting a professional practice or opening a business
- Placing or answering advertisements
- Writing letters of application
- Being on a union or professional register

Civilian Labor Force—Consists of persons classified as employed or unemployed in accordance with the criteria described above.

Experienced Unemployed—These are unemployed persons who have worked at any time in the past.

Experienced Civilian Labor Force—Consists of the employed and the experienced unemployed.

Labor Force—All persons classified in the civilian labor force plus members of the U.S. Armed Forces (persons on active duty with the United States Army, Air Force, Navy, Marine Corps, or Coast Guard).

Not in Labor Force—All persons 16 years old and over who are not classified as members of the labor force. This category consists mainly of students, housewives, retired workers, seasonal workers enumerated in an *off* season who were not looking for work, institutionalized persons, and persons doing only incidental unpaid family work (less than 15 hours during the reference week).

Worker—This term appears in connection with several subjects: journey-to-work items, class of worker, weeks worked in 1989, and number of workers in family in 1989. Its meaning varies and, therefore, should be determined in each case by referring to the definition of the subject in which it appears.

Actual Hours Worked Last Week—All persons who reported working during the reference week were asked to report in questionnaire item 21b the number of hours that they worked. The statistics on hours worked pertain to the number of hours actually worked at all jobs, and do not necessarily reflect the number of hours typically or usually worked or the scheduled number of hours. The concept of "actual hours" differs from that of "usual hours" described below. The number of persons who worked only a small number of hours is probably understated since such persons sometimes consider themselves as not working. Respondents were asked to include overtime or extra hours worked, but to exclude lunch hours, sick leave, and vacation leave.

Limitation of the Data—The census may understate the number of employed persons because persons who have irregular, casual, or unstructured jobs sometimes report themselves as not working. The number of employed persons "at work" is probably overstated in the census (and conversely, the number of employed "with a job, but not at work" is understated) since some persons on vacation or sick leave erroneously reported themselves as working. This problem has no effect on the total number of employed persons. The reference week for the employment data is not the same for all persons. Since persons can change their employment status from one week to another, the lack of a uniform reference week may mean that the employment data do not reflect the reality of the employment situation of any given week. (For more information, see the discussion under "Reference Week.")

Comparability—The questionnaire items and employment status concepts for the 1990 census are essentially the same as those used in the 1980 and 1970 censuses. However, these concepts differ in many respects from those associated with the 1950 and 1960 censuses.

Since employment data from the census are obtained from respondents in households, they differ from statistics based on reports from individual business establishments, farm enterprises, and certain government programs. Persons employed at more than one job are counted only once in the census and are classified according to the job at which they worked the greatest

number of hours during the reference week. In statistics based on reports from business and farm establishments, persons who work for more than one establishment may be counted more than once. Moreover, some tabulations may exclude private household workers, unpaid family workers, and self-employed persons, but may include workers less than 16 years of age.

An additional difference in the data arises from the fact that persons who had a job but were not at work are included with the employed in the census statistics, whereas many of these persons are likely to be excluded from employment figures based on establishment payroll reports. Furthermore, the employment status data in census tabulations include persons on the basis of place of residence regardless of where they work, whereas establishment data report persons at their place of work regardless of where they live. This latter consideration is particularly significant when comparing data for workers who commute between areas.

Census data on actual hours worked during the reference week may differ from data from other sources. The census measures hours actually worked, whereas some surveys measure hours paid for by employers. Comparability of census actual hours worked data may also be affected by the nature of the reference week (see "Reference Week").

For several reasons, the unemployment figures of the Census Bureau are not comparable with published figures on unemployment compensation claims. For example, figures on unemployment compensation claims exclude persons who have exhausted their benefit rights, new workers who have not earned rights to unemployment insurance, and persons losing jobs not covered by unemployment insurance systems (including some workers in agriculture, domestic services, and religious organizations, and self-employed and unpaid family workers). In addition, the qualifications for drawing unemployment compensation differ from the definition of unemployment used by the Census Bureau. Persons working only a few hours during the week and persons with a job but not at work are sometimes eligible for unemployment compensation but are classified as "Employed" in the census. Differences in the geographical distribution of unemployment data arise because the place where claims are filed may not necessarily be the same as the place of residence of the unemployed worker.

The figures on employment status from the decennial census are generally comparable with similar data collected in the Current Population Survey. However, some difference may exist because of variations in enumeration and processing techniques.

FERTILITY

The data on fertility (also referred to as "children ever born") were derived from answers to questionnaire item 20, which was asked of a sample of women 15 years old and over regardless of marital status. Stillbirths, stepchildren, and adopted children were excluded from the number of children ever born. Ever-married women were instructed to include all children born to them before and during their most recent marriage, children no longer living, and children away from home, as well as children who were still living in the home. Never-married women were instructed to include all children born to them.

Data are most frequently presented in terms of the aggregate number of children ever born to women in the specified category and in terms of the rate per 1,000 women. For purposes of calculating the aggregate, the open-ended response category, "12 or more" is assigned a value of 13.

Limitation of the Data—Although the data are assumed to be less complete for out-of-wedlock births than for births occurring within marriage, comparisons of 1980 census data on the fertility of single women with other census sources and administrative records indicate that no significant differences were found between different data sources; that is, 1980 census data on children ever born to single women were complete with no significant understatements of childbearing.

Comparability—The wording of the question on children ever born was the same in 1990 as in 1980. In 1970, however, the question on children ever born was asked of all ever-married women but only of never-married women who received self-administered questionnaires. Therefore, rates and numbers of children ever born to single women in 1970 may be understated. Data presented for children ever born to ever-married women are comparable for the 1990 census and all previous censuses containing this question.

GROUP QUARTERS

All persons not living in households are classified by the Census Bureau as living in group quarters. Two general categories of persons in group quarters are recognized: (1) institutionalized persons and (2) other persons in group quarters (also referred to as "noninstitutional group quarters").

Institutionalized Persons—Includes persons under formally authorized, supervised care or custody in institutions at the time of enumeration. Such persons are classified as "patients or inmates" of an institution regardless of the availability of nursing or medical care, the length of stay, or the number of persons in the institution. Generally, institutionalized persons are restricted to the institutional buildings and grounds (or must have passes or escorts to leave) and thus have limited interaction with the surrounding community. Also, they are generally under the care of trained staff who have responsibility for their safekeeping and supervision.

Type of Institution—The type of institution was determined as part of census enumeration activities. For institutions which specialize in only one specific type of service, all patients or inmates were given the same classification. For institutions which had multiple types of major services (usually general hospitals and Veterans' Administration hospitals), patients were classified according to selected types of wards. For example, in psychiatric wards of hospitals, patients were classified in "mental (psychiatric) hospitals"; in hospital wards for persons with chronic diseases, patients were classified in "hospitals for the chronically ill." Each patient or inmate was classified in only one type of institution. Institutions include the following types:

Correctional Institutions—Includes prisons, Federal detention centers, military stockades and jails, police lockups, halfway houses, local jails, and other confinement facilities, including work farms.

Prisons—Where persons convicted of crimes serve their sentences. In some census products, the prisons are classified by two types of control: (1) "Federal" (operated by the Bureau of Prisons of the Department of Justice) and (2) "State." Residents who are criminally insane were classified on the basis of where they resided at the time of enumeration: (1) in institutions (or hospital wards) operated by departments of correction or similar agencies; or (2) in institutions operated by departments of mental health or similar agencies.

Federal Detention Centers—Operated by the Immigration and Naturalization Service (INS) and the Bureau of Prisons. These facilities include detention centers used by the Park Police; Bureau of Indian Affairs Detention Centers; INS Centers, such as the INS Federal Allen Detention Facility; INS Processing Centers; and INS Contract Detention Centers used to detain aliens under exclusion or deportation proceedings, as well as those aliens who have not been placed into proceedings, such as custodial required departures; and INS Detention Centers operated within local jails, and State and Federal prisons.

Military Stockades, Jails—Operated by military police and used to hold persons awaiting trial or convicted of violating military laws.

Local Jails and Other Confinement Facilities—Includes facilities operated by counties and cities that primarily hold persons beyond arraignment, this category are work farms used to hold persons awaiting trial or serving time on relatively short sentences and jails run by private businesses under contract for local governments (but *not* by State governments).

Police Lockups—Temporary-holding facilities operated by county and city police that hold persons for 48 hours or less only if they have not been formally charged in court.

Halfway Houses—Operated for correctional purposes and include probation and restitution centers, pre-release centers, and community-residential centers.

Other Types of Correctional Institutions—Privately operated correctional facilities and correctional facilities specifically for alcohol/drug abuse.

Nursing Homes—Comprises a heterogeneous group of places. The majority of patients are elderly, although persons who require nursing care because of chronic physical conditions may be found in these homes regardless of their age. Included in this category are skilled-nursing facilities, intermediate-care facilities, long-term care rooms in wards or buildings on the grounds of hospitals, or long-term care rooms/nursing wings in congregate housing facilities. Also included are nursing, convalescent, and rest homes, such as soldiers', sailors', veterans', and fraternal or religious homes for the aged, with or without nursing care. In some census products, nursing homes are classified by type of ownership as "Federal," "State," "Private not-for-profit," and "Private for profit."

Mental (Psychiatric) Hospitals—Includes hospitals or wards for the criminally insane not operated by a prison, and psychiatric wards of general hospitals and veterans' hospitals. Patients receive supervised medical/nursing care from formally-trained staff. In some census products, mental hospitals are classified by type of ownership as "Federal," "State or local," "Private," and "Ownership not known."

Hospitals for Chronically Ill—Includes hospitals for patients who require long-term care, including those in military hospitals and wards for the chronically ill located on military bases; or other hospitals or wards for the chronically ill, which include tuberculosis hospitals or wards, wards in general and Veterans' Administration hospitals for the chronically ill, neurological wards, hospices, wards for patients with Hansen's Disease (leprosy) and other incurable diseases, and other unspecified wards for the chronically ill. Patients who had no usual home elsewhere were enumerated as part of the institutional population in hospital patients are at the hospital temporarily and were enumerated at their usual place of residence. (For more information, see "Wards in General and Military Hospitals for Patients Who Have No Usual Home Elsewhere.")

Schools, Hospitals, or Wards for the Mentally Retarded—Includes those institutions such as wards in hospitals for the mentally retarded, and intermediate-care facilities for the mentally retarded that provide supervised medical/ nursing care from formally-trained staff. In some census products, this category is classified by type of ownership as "Federal," "State or local," "Private," and "Ownership not known."

Schools, Hospitals, or Wards for the Physically Handicapped—Includes three types of institutions: institutions for the blind, those for the deaf, and orthopedic wards and institutions for the physically handicapped. Institutions for persons with speech problems are classified with "institutions for the deaf." The category "orthopedic wards and institutions for the physically handicapped" includes those institutions providing relatively long-term care to accident victims, and to persons with polio, cerebral palsy, and muscular dystrophy. In some census products, this category is classified by type of ownership as "Public," "Private," and "Ownership not known."

Hospitals, and Wards for Drug/Alcohol Abuse—Includes hospitals, and hospital wards in psychiatric and general hospitals. These facilities are equipped medically and designed for the diagnosis and treatment of medical or psychiatric illnesses associated with alcohol or drug abuse. Patients receive supervised medical care from formally-trained staff.

Wards in General and Military Hospitals for Patients Who Have No Usual Home Elsewhere—Includes maternity, neonatal, pediatric (including wards for boarder babies), military, and surgical wards of hospitals, and wards for persons with infectious diseases.

Juvenile Institutions—Includes homes, schools, and other institutions providing care for children (short- or long-term care). Juvenile institutions include the following types:

Homes for Abused, Dependent, and Neglected Children—Includes orphanages and other institutions which provide long-term care (usually more than 30 days) for children. This category is classified in some census products by type of ownership as "Public" and "Private."

Residential Treatment Centers—Includes those institutions which primarily serve children who, by clinical diagnosis, are moderately or seriously disturbed emotionally. Also, these institutions provide long-term treatment services, usually supervised or directed by a psychiatrist.

Public Training Schools for Juvenile Delinquents—Usually operated by a State agency (for example, department of welfare, corrections, or a youth authority). Some are operated by county and city governments. These public training schools are specialized institutions serving delinquent children, generally between the ages of 10 and 17 years old, all of whom are committed by the courts.

Private Training Schools—Operated under private auspices. Some of the children they serve are committed by the courts as delinquents. Others are referred by parents or social agencies because of delinquent behavior. One difference between private and public training schools is that, by their administrative policy, private schools have control over their selection and intake.

Detention Centers—Includes institutions providing short-term care (usually 30 days or less) primarily for delinquent children pending disposition of their cases by a court. This category also covers diagnostic centers. In practice, such institutions may be caring for both delinquent and neglected children pending court disposition.

Other Persons in Group Quarters (also referred to as "noninstitutional group quarters")—Includes all persons who live in group quarters other than institutions. Persons who live in the following living quarters are classified as "other persons in group quarters" when there are 10 or more unrelated persons living in the unit; otherwise, these living quarters are classified as housing units.

Rooming Houses—Includes persons residing in rooming and boarding houses and living in quarters with 10 or more unrelated persons.

Group Homes—Includes "community-based homes" that provide care and supportive services. Such places include homes for the mentally ill, mentally retarded, and physically handicapped; drug/ alcohol halfway houses; communes; and maternity homes for unwed mothers.

Homes for the Mentally Ill—Includes community-based homes that provide care primarily for the mentally ill. In some data products, this category is classified by type of ownership as "Federal," "State," "Private," and "Ownership not known." Homes which combine treatment of the physically handicapped with treatment of the mentally ill are counted as homes for the mentally ill.

trial schools, camps, or farms for juvenile delinquents.

mentally retarded. Homes which combine treatment of the physically handicapped with treatment

of the mentally retarded are counted as homes for the mentally retarded. This category is classified by type of ownership in some census products, as "Federal," "State," "Private," or "Ownership not known."

Homes for the Physically Handicapped—Includes community-based homes for the blind, for the deaf, and other community-based homes for the physically handicapped. Persons with speech problems are classified with homes for the deaf. In some census products, this category is classified by type of ownership as "Public," "Private," or "Ownership not known."

Homes or Halfway Houses for Drug/Alcohol Abuse—Includes persons with no usual home elsewhere in places that provide community-based care and supportive services to persons suffering from a drug/alcohol addiction and to recovering alcoholics and drug abusers. Places providing community-based care for drug and alcohol abusers include group homes, detoxification centers, quarterway houses (residential treatment facilities that work closely with accredited hospitals), halfway houses, and recovery homes for ambulatory, mentally competent recovering alcoholics and drug abusers who may be re-entering the work force.

Maternity Homes for Unwed Mothers—Includes persons with no usual home elsewhere in places that provide domestic care for unwed mothers and their children. These homes may provide social services and post-natal care within the facility, or may make arrangements for women to receive such services in the community. Nursing services are usually available in the facility.

Other Group Homes—Includes persons with no usual home elsewhere in communes, foster care homes, and job corps centers with 10 or more unrelated persons. These types of places provide communal living quarters, generally for persons who have formed their own community in which they have common interests and often share or own property jointly.

Religious Group Quarters—Includes, primarily, group quarters for nuns teaching in parochial schools and for priests living in rectories. It also includes other convents and monasteries, except those associated with a general hospital or an institution.

College Quarters Off Campus—Includes privately-owned rooming and boarding houses off campus, if the place is reserved exclusively for occupancy by college students and if there are 10 or more unrelated persons. In census products, persons in this category are classified as living in a college dormitory.

Persons residing in certain other types of living arrangements are classified as living in "noninstitutional group quarters" regardless of the number of people sharing the unit. These include persons residing in the following types of group quarters:

College Dormitories—Includes college students in dormitories (provided the dormitory is restricted to students who do not have their families living with them), fraternity and sorority houses, and on-campus residential quarters used exclusively for those in religious orders who are attending college. Students in privately-owned rooming and boarding houses off campus are also included, if the place is reserved exclusively for occupancy by college-level students and if there are 10 or more unrelated persons.

Military Quarters—Includes military personnel living in barracks and dormitories on base, in transient quarters on base for temporary residents (both civilian and military), and on military ships. However, patients in military hospitals receiving treatment for chronic diseases or who had no usual home elsewhere, and persons being held in military stockades were included as part of the institutional population.

Agriculture Workers' Dormitories—Includes persons in migratory farm workers' camps on farms, bunkhouses for ranch hands, and other dormitories on farms, such as those on "tree farms."

Other Workers' Dormitories—Includes persons in logging camps, construction workers' camps, firehouse dormitories, job-training camps, energy enclaves (Alaska only), and nonfarm migratory workers' camps (for example, workers in mineral and mining camps).

Emergency Shelters for Homeless Persons (with sleeping facilities) and Visible in Street Locations—Includes persons enumerated during the "Shelter-and-Street-Night" operation primarily on March 20-21, 1990. Enumerators were instructed not to ask if a person was "homeless." If a person was at one of the locations below on March 20-21, the person was counted as described below. (For more information on the "Shelter-and-Street-Night" operation, see Appendix D, Collection and Processing Procedures.) This category is divided into four classifications:

Emergency Shelters for Homeless Persons (with sleeping facilities)—Includes persons who stayed overnight on March 20, 1990, in permanent and temporary emergency housing, missions, hotels/motels, and flophouses charging $12 or less (excluding taxes) per night; Salvation Army shelters, hotels, and motels used *entirely* for homeless persons regardless of the nightly rate charged; rooms in hotels and motels used *partially* for the homeless;

and similar places known to have persons who have no usual home elsewhere staying overnight. If not shown separately, shelters and group homes that provide *temporary* sleeping facilities for runaway, neglected, and homeless children are included in this category in data products.

Shelters for Runaway, Neglected, and Homeless Children—Includes shelters/group homes which provide *temporary* sleeping facilities for juveniles.

Visible in Street Locations—Includes street blocks and open public locations designated before March 20, 1990 by city and community officials as places where the homeless congregate at night. *All* persons found at predesignated street sites from 2 a.m. to 4 a.m. and leaving abandoned or boarded-up buildings from 4 a.m. to 8 a.m. on March 21, 1990 were enumerated during "street" enumeration, except persons in uniform such as police and persons engaged in obvious money-making activities other than begging or panhandling. Enumerators were instructed not to ask if a person was "homeless."

This cannot be considered a complete count of all persons living on the streets because those who were so well hidden that local people did not know where to find them were likely to have been missed as were persons moving about or in places not identified by local officials. It is also possible that persons with homes could have been included in the count of "visible in street locations" if they were present when the enumerator did the enumeration of a particular block.

Predesignated street sites include street corners, parks, bridges, persons emerging from abandoned and boarded-up buildings, noncommercial campsites (tent cities), all-night movie theaters, all-night restaurants, emergency hospital waiting rooms, train stations, airports, bus depots, and subway stations.

Shelters for Abused Women (Shelters Against Domestic Violence or Family Crisis Centers)—Includes community-based homes or shelters that provide domiciliary care for women who have sought shelter from family violence and who may have been physically abused. Most shelters also provide care for children of abused women. These shelters may provide social services, meals, psychiatric treatment, and counseling. In some census products, "shelters for abused women" are included in the category "other noninstitutional group quarters."

Dormitories for Nurses and Interns in General and Military Hospitals—Includes group quarters for nurses and other staff members. It excludes patients.

Crews of Maritime Vessels—Includes officers, crew members, and passengers of maritime U.S. flag vessels. All ocean-going and Great Lakes ships are included.

Staff Residents of Institutions—Includes staff residing in group quarters on institutional grounds who provide formally-authorized, supervised care or custody for the institutionalized population.

Other Nonhousehold Living Situations—Includes persons with no usual home elsewhere enumerated during transient or "T-Night" enumeration at YMCA's, YWCA's, youth hostels, commercial and government-run campgrounds, campgrounds at racetracks, fairs, and carnivals, and similar transient sites.

Living Quarters for Victims of Natural Disasters—Includes living quarters for persons temporarily displaced by natural disasters.

Limitation of the Data—Two types of errors can occur in the classification of "types of group quarters":

1. *Misclassification of Group Quarters*—During the 1990 Special Place Prelist operation, the enumerator determined the type of group quarters associated with each special place in their assignment. The enumerator used the Alphabetical Group Quarters Code List and Index to the Alphabetical Group Quarters Code List to assign a two-digit code number followed by either an "I," for institutional, or an "N," for noninstitutional to each group quarters. In 1990, unacceptable group quarter codes were edited. (For more information on editing of unacceptable data, see Appendix C, Accuracy of the Data.)
2. *No Classification (unknowns)*—The imputation rate for type of institution was higher in 1980 (23.5 percent) than in 1970 (3.3 percent). Improvements were made to the 1990 Alphabetical Group Quarters Code List; that is, the inclusion of more group quarters categories and an "Index to the Alphabetical Group Quarters Code List." (For more information on the allocation rates for Type of Institution, see the allocation rates in 1990 CP-1, *General Population Characteristics*.)

In previous censuses, allocation rates for demographic characteristics (such as age, sex, race, and marital status) of the institutional population were similar to those for the total population. The allocation rates for sample characteristics such as school enrollment, highest grade completed, income, and veteran status for the institutional and noninstitutional group quarters population have been substantially higher than the population in households at least as far back as the 1960 census. The data, however, have historically presented a reasonable picture of the institutional and noninstitutional group quarters population.

Shelter and Street Night (S-Night)—For the 1990 census "Shelter-and-Street-Night" operation, persons well hidden, moving about, or in locations enumerators did not visit were likely to be missed. The number of people missed will never be known; thus, the 1990 census cannot be considered to include a definitive count of America's total homeless population. It does, however, give an idea of relative differences among areas of the country. Other components were counted as part of regular census procedures.

The count of persons in shelters and visible on the street could have been affected by many factors. How much the factors affected the count can never be answered definitively, but some elements include:

1. How well enumerators were trained and how well they followed procedures.
2. How well the list of shelter and street locations given to the Census Bureau by the local government reflected the actual places that homeless persons stay at night.
3. Cities were encouraged to open temporary shelters for census night, and many did that and actively encouraged people to enter the shelters. Thus, people who may have been on the street otherwise were in shelters the night of March 20, so that the ratio of shelter-to-street population could be different than usual.
4. The weather, which was unusually cold in some parts of the country, could affect how likely people were to seek emergency shelter or to be more hidden than usual if they stayed outdoors.
5. The media occasionally interfered with the ability to do the count.
6. How homeless people perceived the census and whether they wanted to be counted or feared the census and hid from it.

The Census Bureau conducted two assessments of Shelter and Street Night: (1) the quality of the lists of shelters used for the Shelter-and-Street-Night operation, and (2) how well procedures were followed by census- takers for the street count in parts of five cities (Chicago, Los Angeles, New Orleans, New York, and Phoenix). Information about these two assessments is available from the Chief, Center for Survey Methods Research, Bureau of the Census, Washington, DC 20233.

Comparability—For the 1990 census, the definition of institutionalized persons was revised so that the definition of "care" only includes persons under organized medical or formally-authorized, supervised care or custody. As a result of this change to the institutional definition, maternity homes are classified as noninstitutional rather than institutional group quarters as in previous censuses. The following types of other group quarters are classified as institutional rather than noninstitutional group quarters: "halfway houses (operated for correctional purposes)" and "wards in general and military hospitals for patients who have no usual home elsewhere," which includes maternity, neonatal, pediatric, military, and surgical wards of hospitals, other-purpose wards of hospitals, and wards for infectious diseases. These changes should not significantly affect the comparability of data with earlier censuses because of the relatively small number of persons involved.

As in 1980, 10 or more unrelated persons living together were classified as living in noninstitutional group quarters. In 1970, the criteria was six or more unrelated persons.

Several changes also have occurred in the identification of specific types of group quarters. For the first time, the 1990 census identifies separately the following types of correctional institutions: persons in halfway houses (operated for correctional purposes), military stockades and jails, and police lockups. In 1990, tuberculosis hospitals or wards are included with hospitals for the chronically ill; in 1980, they were shown separately. For 1990, the noninstitutional group quarters category, "Group homes" is further classified as: group homes for drug/ alcohol abuse; maternity homes (for unwed mothers), group homes for the mentally ill, group homes for the mentally retarded, and group homes for the physically handicapped. Persons living in communes, foster-care homes, and job corps centers are classified with "Other group homes" only if 10 or more unrelated persons share the unit; otherwise, they are classified as housing units.

In 1990, workers' dormitories were classified as group quarters regardless of the number of persons sharing the dorm. In 1980, 10 or more unrelated persons had to share the dorm for it to be classified as a group quarters. In 1960, data on persons in military barracks were shown only for men. In subsequent censuses, they include both men and women.

In 1990 census data products, the phrase "inmates of institutions" was changed to "institutionalized persons." Also, persons living in noninstitutional group quarters were referred to as "other persons in group quarters," and the phrase "staff residents" was used for staff living in institutions.

In 1990, there are additional institutional categories and noninstitutional group quarters categories compared with the 1980 census. The institutional categories added include "hospitals and wards for drug/ alcohol abuse" and "military hospitals for the chronically ill." The noninstitutional group quarters categories added include emergency shelters for homeless persons; shelters for runaway, neglected, and homeless children; shelters for abused women; and visible-in-street locations. Each of these noninstitutional group quarters categories was enumerated on March 20-21, 1990,

during the "Shelter-and-Street-Night" operation. (For more information on the "Shelter-and-Street-Night" operation, see Appendix D, Collection and Processing Procedures.)

HISPANIC ORIGIN

The data on Spanish/Hispanic origin were derived from answers to questionnaire item 7, which was asked of all persons. Persons of Hispanic origin are those who classified themselves in one of the specific Hispanic origin categories listed on the questionnaire—"Mexican," "Puerto Rican," or "Cuban"—as well as those who indicated that they were of "other Spanish/Hispanic" origin. Persons of "Other Spanish/Hispanic" origin are those whose origins are from Spain, the Spanish-speaking countries of Central or South America, or the Dominican Republic, or they are persons of Hispanic origin identifying themselves generally as Spanish, Spanish-American, Hispanic, Hispano, Latino, and so on. Write-in responses to the "other Spanish/Hispanic" category were coded only for sample data.

Origin can be viewed as the ancestry, nationality group, lineage, or country of birth of the person or the person's parents or ancestors before their arrival in the United States. Persons of Hispanic origin may be of any race.

Some tabulations are shown by the Hispanic origin of the householder. In all cases where households, families, or occupied housing units are classified by Hispanic origin, the Hispanic origin of the householder is used. (See the discussion of householder under "Household Type and Relationship.")

During direct interviews conducted by enumerators, if a person could not provide a single origin response, he or she was asked to select, based on self-identification, the group which best described his or her origin or descent. If a person could not provide a single group, the origin of the person's mother was used. If a single group could not be provided for the person's mother, the first origin reported by the person was used.

If any household member failed to respond to the Spanish/Hispanic origin question, a response was assigned by the computer according to the reported entries of other household members by using specific rules of precedence of household relationship. In the processing of sample questionnaires, responses to other questions on the questionnaire, such as ancestry and place of birth, were used to assign an origin before any reference was made to the origin reported by other household members. If an origin was not entered for any household member, an origin was assigned from another household according to the race of the householder. This procedure is a variation of the general imputation process described in Appendix C, Accuracy of the Data.

Comparability—There may be differences between the total Hispanic origin population based on 100-percent tabulations and sample tabulations. Such differences are the result of sampling variability, nonsampling error, and more extensive edit procedures for the Spanish/Hispanic origin item on the sample questionnaires. (For more information on sampling variability and nonsampling error, see Appendix C, Accuracy of the Data.)

The 1990 data on Hispanic origin are generally comparable with those for the 1980 census. However, there are some differences in the format of the Hispanic origin question between the two censuses. For 1990, the word "descent" was deleted from the 1980 wording. In addition, the term "Mexican-Amer." used in 1980 was shortened further to "Mexican-Am." to reduce misreporting (of "American") in this category detected in the 1980 census. Finally, the 1990 question allowed those who reported as "other Spanish/Hispanic" to write in their specific Hispanic origin group.

Misreporting in the "Mexican-Amer." category of the 1980 census item on Spanish/Hispanic origin may affect the comparability of 1980 and 1990 census data for persons of Hispanic origin for certain areas of the country. An evaluation of the 1980 census item on Spanish/Hispanic origin indicated that there was misreporting in the Mexican origin category by White and Black persons in certain areas. The study results showed evidence that the misreporting occurred in the South (excluding Texas), the Northeast (excluding the New York City area), and a few States in the Midwest Region. Also, results based on available data suggest that the impact of possible misreporting of Mexican origin in the 1980 census was severe in those portions of the above-mentioned regions where the Hispanic origin population was generally sparse. However, national 1980 census data on the Mexican origin population or total Hispanic origin population at the national level was not seriously affected by the reporting problem. (For a more detailed discussion of the evaluation of the 1980 census Spanish/Hispanic origin item, see the 1980 census Supplementary Reports.)

The 1990 and 1980 census data on the Hispanic population are not directly comparable with 1970 Spanish origin data because of a number of factors: (1) overall improvements in the 1980 and 1990 censuses, (2) better coverage of the population, (3) improved question designs, and (4) an effective public relations campaign by the Census Bureau with the assistance of national and community ethnic groups.

Specific changes in question design between the 1980 and 1970 censuses included the placement of the category "No, not Spanish/Hispanic" as the first category in that question. (The corresponding category appeared last in the 1970 question.) Also, the 1970 category "Central or South American" was deleted because in 1970 some respondents misinterpreted the category; furthermore, the designations "Mexican-American" and "Chicano" were added to the Spanish/Hispanic origin question in 1980. In the 1970 census, the question on Spanish origin was asked of only a 5-percent sample of the population.

HOUSEHOLD TYPE AND RELATIONSHIP

Household

A household includes all the persons who occupy a housing unit. A housing unit is a house, an apartment, a mobile home, a group of rooms, or a single room that is occupied (or if vacant, is intended for occupancy) as separate living quarters. Separate living quarters are those in which the occupants live and eat separately from any other persons in the building and which have direct access from the outside of the building or through a common hall. The occupants may be a single family, one person living alone, two or more families living together, or any other group of related or unrelated persons who share living arrangements.

In 100-percent tabulations, the count of households or householders always equals the count of occupied housing units. In sample tabulations, the numbers may differ as a result of the weighting process.

Persons Per Household—A measure obtained by dividing the number of persons in households by the number of households (or householders). In cases where persons in households are cross-classified by race or Hispanic origin, persons in the household are classified by the race or Hispanic origin of the householder rather than the race or Hispanic origin of each individual.

Relationship to Householder

Householder—The data on relationship to householder were derived from answers to questionnaire item 2, which was asked of all persons in housing units. One person in each household is designated as the householder. In most cases, this is the person, or one of the persons, in whose name the home is owned, being bought, or rented and who is listed in column 1 of the census questionnaire. If there is no such person in the household, any adult household member 15 years old and over could be designated as the householder.

Households are classified by type according to the sex of the householder and the presence of relatives. Two types of householders are distinguished: a family householder and a nonfamily householder. A family householder is a householder living with one or more persons related to him or her by birth, marriage, or adoption. The householder and all persons in the household related to him or her are family members. A nonfamily householder is a householder living alone or with nonrelatives only.

Spouse—Includes a person married to and living with a householder. This category includes persons in formal marriages, as well as persons in common-law marriages.

The number of spouses is equal to the number of "married-couple families" or "married-couple households" in 100-percent tabulations. The number of spouses, however, is generally less than half of the number of "married persons with spouse present" in sample tabulations, since more than one married couple can live in a household, but only spouses of householders are specifically identified as "spouse." For sample tabulations, the number of "married persons with spouse present" includes married-couple subfamilies and married-couple families.

Child—Includes a son or daughter by birth, a stepchild, or adopted child of the householder, regardless of the child's age or marital status. The category excludes sons-in-law, daughters-in-law, and foster children.

Natural-Born or Adopted Son/Daughter—A son or daughter of the householder by birth, regardless of the age of the child. Also, this category includes sons or daughters of the householder by legal adoption, regardless of the age of the child. If the stepson/stepdaughter of the householder has been legally adopted by the householder, the child is still classified as a stepchild.

Stepson/Stepdaughter—A son or daughter of the householder through marriage but not by birth, regardless of the age of the child. If the stepson/stepdaughter of the householder has been legally adopted by the householder, the child is still classified as a stepchild.

Own Child—A never-married child under 18 years who is a son or daughter by birth, a stepchild, or an adopted child of the householder. In certain tabulations, own children are further classified as living with two parents or with one parent only. Own children of the householder living with two parents are by definition found only in married-couple families.

In a subfamily, an "own child" is a never-married child under 18 years of age who is a son, daughter, stepchild, or an adopted child of a mother in a mother-child subfamily, a father in a father-child subfamily, or either spouse in a married-couple subfamily.

"Related children" in a family include own children and all other persons under 18 years of age in the household, regardless of marital status, who are related to the householder, except the spouse of the householder. Foster children are not included since they are not related to the householder.

Other Relatives—In tabulations, includes any household member related to the householder by birth, marriage, or adoption, but not included specifically in another relationship category. In certain detailed tabulations, the following categories may be shown:

householder.

Brother/Sister—The brother or sister of the house-holder, including stepbrothers, stepsisters, and brothers and sisters by adoption. Brothers-in-law and sisters-in-law are included in the "Other relative" category on the questionnaire.

Parent—The father or mother of the householder, including a stepparent or adoptive parent. Fathers-in-law and mothers-in-law are included in the "Other relative" category on the questionnaire.

Other Relatives—Anyone not listed in a reported category above who is related to the householder by birth, marriage, or adoption (brother-in-law, grandparent, nephew, aunt, mother-in-law, daughter-in-law, cousin, and so forth).

Nonrelatives—Includes any household member, including foster children not related to the householder by birth, marriage, or adoption. The following categories may be presented in more detailed tabulations:

Roomer, Boarder, or Foster Child—Roomer, boarder, lodger, and foster children or foster adults of the householder.

Housemate or Roommate—A person who is not related to the householder and who shares living quarters primarily in order to share expenses.

Unmarried Partner—A person who is not related to the householder, who shares living quarters, and who has a close personal relationship with the householder.

Other Nonrelatives—A person who is not related by birth, marriage, or adoption to the householder and who is not described by the categories given above.

When relationship is not reported for an individual, it is imputed according to the responses for age, sex, and marital status for that person while maintaining consistency with responses for other individuals in the household. (For more information on imputation, see Appendix C, Accuracy of the Data.)

Unrelated Individual

An unrelated individual is: (1) a householder living alone or with nonrelatives only, (2) a household member who is not related to the householder, or (3) a person living in group quarters who is not an inmate of an

A family consists of a householder and one or more other persons living in the same household who are related to the householder by birth, marriage, or adoption. All persons in a household who are related to the householder are regarded as members of his or her family. A household can contain only one family for purposes of census tabulations. Not all households contain families since a household may comprise a group of unrelated persons or one person living alone.

Families are classified by type as either a "married-couple family" or "other family" according to the sex of the householder and the presence of relatives. The data on family type are based on answers to questions on sex and relationship which were asked on a 100-percent basis.

Married-Couple Family—A family in which the householder and his or her spouse are enumerated as members of the same household.

Other Family:

Male Householder, No Wife Present—A family with a male householder and no spouse of householder present.

Female Householder, No Husband Present—A family with a female householder and no spouse of householder present.

Persons Per Family—A measure obtained by dividing the number of persons in families by the total number of families (or family householders). In cases where the measure, "persons in family" or "persons per family" are cross-tabulated by race or Hispanic origin, the race or Hispanic origin refers to the householder rather than the race or Hispanic origin of each individual.

Subfamily

A subfamily is a married couple (husband and wife enumerated as members of the same household) with or without never-married children under 18 years old, or one parent with one or more never-married children under 18 years old, living in a household and related to, but not including, either the householder or the householder's spouse. The number of subfamilies is not included in the count of families, since subfamily members are counted as part of the householder's family.

Subfamilies are defined during processing of sample data. In selected tabulations, subfamilies are further classified by type: married-couple subfamilies, with or without own children; mother-child subfamilies; and

Lone parents include people maintaining either one-parent families or one-parent subfamilies. Married couples include husbands and wives in both married-couple families and married-couple subfamilies.

Unmarried-Partner Household

An unmarried-partner household is a household other than a "married-couple household" that includes a householder and an "unmarried partner." An "unmarried partner" can be of the same sex or of the opposite sex of the householder. An "unmarried partner" in an "unmarried-partner household" is an adult who is unrelated to the householder, but shares living quarters and has a close personal relationship with the householder.

Unmarried-Couple Household

An unmarried-couple household is composed of two unrelated adults of the opposite sex (one of whom is the householder) who share a housing unit with or without the presence of children under 15 years old.

Foster Children

Foster children are nonrelatives of the householder and are included in the category, "Roomer, boarder, or foster child" on the questionnaire. Foster children are identified as persons under 18 years old and living in households that have no nonrelatives 18 years old and over (who might be parents of the nonrelatives under 18 years old).

Stepfamily

A stepfamily is a "married-couple family" with at least one stepchild of the householder present, where the householder is the husband.

Comparability—The 1990 definition of a household is the same as that used in 1980. The 1980 relationship category "Son/daughter" has been replaced by two categories, "Natural-born or adopted son/daughter" and "Stepson/stepdaughter." "Grandchild" has been added as a separate category. The 1980 nonrelative categories: "Roomer, boarder" and "Partner, roommate" have been replaced by the categories "Roomer, boarder, or foster child," "Housemate, roommate," and "Unmarried partner." The 1980 nonrelative category "Paid employee" has been dropped.

INCOME IN 1989

The data on income in 1989 were derived from answers to questionnaire items 32 and 33. Information on money income received in the calendar year 1989 was requested from persons 15 years old and over. "Total income" is the algebraic sum of the amounts reported separately for wage or salary income; net nonfarm self-employment income; net farm self-employment income; interest, dividend, or net rental or royalty income; Social Security or railroad retirement income; public assistance or welfare income; retirement or disability income; and all other income. "Earnings" is defined as the algebraic sum of wage or salary income and net income from farm and nonfarm self-employment. "Earnings" represent the amount of income received regularly before deductions for personal income taxes, Social Security, bond purchases, union dues, medicare deductions, etc.

Receipts from the following sources are not included as income: money received from the sale of property (unless the recipient was engaged in the business of selling such property); the value of income "in kind" from food stamps, public housing subsidies, medical care, employer contributions for persons, etc.; withdrawal of bank deposits; money borrowed; tax refunds; exchange of money between relatives living in the same household; gifts and lump-sum inheritances, insurance payments, and other types of lump-sum receipts.

Income Type in 1989

The eight types of income reported in the census are defined as follows:

1. *Wage or Salary Income*—Includes total money earnings received for work performed as an employee during the calendar year 1989. It includes wages, salary, Armed Forces pay, commissions, tips, piece-rate payments, and cash bonuses earned before deductions were made for taxes, bonds, pensions, union dues, etc.

2. *Nonfarm Self-Employment Income*—Includes net money income (gross receipts minus expenses) from one's own business, professional enterprise, or partnership. Gross receipts include the value of all goods sold and services rendered. Expenses includes costs of goods purchased, rent, heat, light, power, depreciation charges, wages and salaries paid, business taxes (not personal income taxes), etc.

3. *Farm Self-Employment Income*—Includes net money income (gross receipts minus operating expenses) from the operation of a farm by a person on his or her own account, as an owner, renter, or sharecropper. Gross receipts include the value of all products sold, government farm programs, money received from the rental of farm equipment to others, and incidental receipts from the sale of wood, sand, gravel, etc. Operating expenses include cost of feed, fertilizer, seed, and other farming supplies, cash wages paid to farmhands, depreciation charges, cash rent, interest on farm mortgages, farm building

repairs, farm taxes (not State and Federal personal income taxes), etc. The value of fuel, food, or other farm products used for family living is not included as part of net income.

4. *Interest, Dividend, or Net Rental Income*—Includes interest on savings or bonds, dividends from stockholdings or membership in associations, net income from rental of property to others and receipts from boarders or lodgers, net royalties, and periodic payments from an estate or trust fund.

5. *Social Security Income*—Includes Social Security pensions and survivors benefits and permanent disability insurance payments made by the Social Security Administration prior to deductions for medical insurance, and railroad retirement insurance checks from the U.S. Government. Medicare reimbursements are not included.

6. *Public Assistance Income*—Includes: (1) supplementary security income payments made by Federal or State welfare agencies to low income persons who are aged (65 years old or over), blind, or disabled; (2) aid to families with dependent children, and (3) general assistance. Separate payments received for hospital or other medical care (vendor payments) are excluded from this item.

7. *Retirement or Disability Income*—Includes: (1) retirement pensions and survivor benefits from a former employer, labor union, or Federal, State, county, or other governmental agency; (2) disability income from sources such as worker's compensation; companies or unions; Federal, State, or local government; and the U.S. military; (3) periodic receipts from annuities and insurance; and (4) regular income from IRA and KEOGH plans.

8. *All Other Income*—Includes unemployment compensation, Veterans Administration (VA) payments, alimony and child support, contributions received periodically from persons not living in the household, military family allotments, net gambling winnings, and other kinds of periodic income other than earnings.

Income of Households—Includes the income of the householder and all other persons 15 years old and over in the household, whether related to the householder or not. Because many households consist of only one person, average household income is usually less than average family income.

Income of Families and Persons—In compiling statistics on family income, the incomes of all members 15 years old and over in each family are summed and treated as a single amount. However, for persons 15 years old and over, the total amounts of their own incomes are used. Although the income statistics covered the calendar year 1989, the characteristics of persons and the composition of families refer to the time of enumeration (April 1990). Thus, the income of the family does not include amounts received by persons who were members of the family during all or part of the calendar year 1989 if these persons no longer resided with the family at the time of enumeration. Yet, family income amounts reported by related persons who did not reside with the family during 1989 but who were members of the family at the time of enumeration are included. However, the composition of most families was the same during 1989 as in April 1990.

Median Income—The median divides the income distribution into two equal parts, one having incomes above the median and the other having incomes below the median. For households and families, the median income is based on the distribution of the total number of units including those with no income. The median for persons is based on persons with income. The median income values for all households, families, and persons are computed on the basis of more detailed income intervals than shown in most tabulations. Median household or family income figures of $50,000 or less are calculated using linear interpolation. For persons, corresponding median values of $40,000 or less are also computed using linear interpolation. All other median income amounts are derived through Pareto interpolation. (For more information on medians and interpolation, see the discussion under "Derived Measures.")

Mean Income—This is the amount obtained by dividing the total income of a particular statistical universe by the number of units in that universe. Thus, mean household income is obtained by dividing total household income by the total number of households. For the various types of income the means are based on households having those types of income. "Per capita income" is the mean income computed for every man, woman, and child in a particular group. It is derived by dividing the total income of a particular group by the total population in that group.

Care should be exercised in using and interpreting mean income values for small subgroups of the population. Because the mean is influenced strongly by extreme values in the distribution, it is especially susceptible to the effects of sampling variability, misreporting, and processing errors. The median, which is not affected by extreme values, is, therefore, a better measure than the mean when the population base is small. The mean, nevertheless, is shown in some data products for most small subgroups because, when weighted according to the number of cases, the means can be added to obtained summary measures for areas and groups other than those shown in census tabulations.

Limitation of the Data—Since questionnaire entries for income frequently are based on memory and not on records, many persons tended to forget minor or irregular sources of income and, therefore, underreport their income. Underreporting tends to be more pronounced for income sources that are not derived from earnings, such as Social Security, public assistance, or from interest, dividends, and net rental income.

There are errors of reporting due to the misunderstanding of the income questions such as reporting gross rather than net dollar amounts for the two questions on net self-employment income, which resulted in an overstatement of these items. Another common error is the reporting of identical dollar amounts in two of the eight type of income items where a respondent with only one source of income assumed that the second amount should be entered to represent total income. Such instances of overreporting had an impact on the level of mean nonfarm or farm self-employment income and mean total income published for the various geographical subdivisions of the State.

Extensive computer editing procedures were instituted in the data processing operation to reduce some of these reporting errors and to improve the accuracy of the income data. These procedures corrected various reporting deficiencies and improved the consistency of reported income items associated with work experience and information on occupation and class of worker. For example, if persons reported they were self-employed on their own farm, not incorporated, but had reported wage and salary earnings only, the latter amount was shifted to net farm self-employment income. Also, if any respondent reported total income only, the amount was generally assigned to one of the type of income items according to responses to the work experience and class-of-worker questions. Another type of problem involved nonreporting of income data. Where income information was not reported, procedures were devised to impute appropriate values with either no income or positive or negative dollar amounts for the missing entries. (For more information on imputation, see Appendix C, Accuracy of the Data.)

In income tabulations for households and families, the lowest income group (e.g., less than $5,000) includes units that were classified as having no 1989 income. Many of these were living on income "in kind," savings, or gifts, were newly created families, or families in which the sole breadwinner had recently died or left the household. However, many of the households and families who reported no income probably had some money income which was not recorded in the census.

The income data presented in the tabulations covers money income only. The fact that many farm families receive an important part of their income in the form of "free" housing and goods produced and consumed on the farm rather than in money should be taken into consideration in comparing the income of farm and nonfarm residents. Nonmoney income such as business expense accounts, use of business transportation and facilities, or partial compensation by business for medical and educational expenses was also received by some nonfarm residents. Many low income families also receive income "in kind" from public welfare programs. In comparing income data for 1989 with earlier years, it should be noted that an increase or decrease in money income does not necessarily represent a comparable change in real income, unless adjustments for changes in prices are made.

Comparability—The income data collected in the 1980 and 1970 censuses are similar to the 1990 census data, but there are variations in the detail of the questions. In 1980, income information for 1979 was collected from persons in approximately 19 percent of all housing units and group quarters. Each person was required to report:

- Wage or salary income
- Net nonfarm self-employment income
- Net farm self-employment income
- Interest, dividend, or net rental or royalty income
- Social Security income
- Public assistance income
- Income from all other sources

Between the 1980 and 1990 censuses, there were minor differences in the processing of the data. In both censuses, all persons with missing values in one or more of the detailed type of income items *and* total income were designated as allocated. Each missing entry was imputed either as a "no" or as a dollar amount. If total income was reported *and* one or more of the type of income fields was not answered, then the entry in total income generally was assigned to one of the income types according to the socioeconomic characteristics of the income recipient. This person was designated as unallocated.

In 1980 and 1990, all nonrespondents with income not reported (whether heads of households or other persons) were assigned the reported income of persons with similar characteristics. (For more information on imputation, see Appendix C, "Accuracy of the Data.")

There was a difference in the method of computer derivation of aggregate income from individual amounts between the two census processing operations. In the 1980 census, income amounts less than $100,000 were coded in tens of dollars, and amounts of $100,000 or more were coded in thousands of dollars; $5 was added to each amount coded in tens of dollars and $500 to each amount coded in thousands of dollars. Entries of $999,000 or more were treated as $999,500 and losses of $9,999 or more were treated as minus $9,999. In the 1990 census, income amounts less than $999,999 were

keyed in dollars. Amounts of $999,999 or more were treated as $999,999 and losses of $9,999 or more were treated as minus $9,999 in all of the computer derivations of aggregate income.

In 1970, information on income in 1969 was obtained from all members in every fifth housing unit and small group quarters (less than 15 persons) and every fifth person in all other group quarters. Each person was required to report:

- Wage or salary income
- Net nonfarm self-employment income
- Net farm self-employment income
- Social Security or Railroad Retirement
- Public assistance or welfare payments
- Income from all other sources

If a person reported a dollar amount in wage or salary, net nonfarm self-employment income, or net farm self-employment income, the person was considered as unallocated only if no further dollar amounts were imputed for any additional missing entries.

In 1960, data on income were obtained from all members in every fourth housing unit and from every fourth person 14 years old and over living in group quarters. Each person was required to report wage or salary income, net self-employment income, and income other than earnings received in 1959. An assumption was made in the editing process that no other type of income was received by a person who reported the receipt of either wage and salary income or self-employment but who had failed to report the receipt of other money income.

For several reasons, the income data shown in census tabulations are not directly comparable with those that may be obtained from statistical summaries of income tax returns. Income, as defined for Federal tax purposes, differs somewhat from the Census Bureau concept. Moreover, the coverage of income tax statistics is different because of the exemptions of persons having small amounts of income and the inclusion of net capital gains in tax returns. Furthermore, members of some families file separate returns and others file joint returns; consequently, the income reporting unit is not consistently either a family or a person.

The earnings data shown in census tabulations are not directly comparable with earnings records of the Social Security Administration. The earnings record data for 1989 excluded the earnings of most civilian government employees, some employees of nonprofit organizations, workers covered by the Railroad Retirement Act, and persons not covered by the program because of insufficient earnings. Furthermore, earnings received from any one employer in excess of $48,000 in 1989 are not covered by earnings records. Finally, because census data are obtained from household questionnaires, they may differ from Social Security Administration earnings record data, which are based upon employers' reports and the Federal income tax returns of self-employed persons.

The Bureau of Economic Analysis (BEA) of the Department of Commerce publishes annual data on aggregate and per-capita personal income received by the population for States, metropolitan areas, and selected counties. Aggregate income estimates based on the income statistics shown in census products usually would be less than those shown in the BEA income series for several reasons. The Census Bureau data are obtained directly from households, whereas the BEA income series is estimated largely on the basis of data from administrative records of business and governmental sources. Moreover, the definitions of income are different. The BEA income series includes some items not included in the income data shown in census publications, such as income "in kind," income received by nonprofit institutions, the value of services of banks and other financial intermediaries rendered to persons without the assessment of specific charges, Medicare payments, and the income of persons who died or emigrated prior to April 1, 1990. On the other hand, the census income data include contributions for support received from persons not residing in the same household and employer contributions for social insurance.

INDUSTRY, OCCUPATION, AND CLASS OF WORKER

The data on industry, occupation, and class of worker were derived from answers to questionnaire items 28, 29, and 30 respectively. These questions were asked of a sample of persons. Information on industry relates to the kind of business conducted by a person's employing organization; occupation describes the kind of work the person does on the job.

For employed persons, the data refer to the person's job during the reference week. For those who worked at two or more jobs, the data refer to the job at which the person worked the greatest number of hours. For unemployed persons, the data refer to their last job. The industry and occupation statistics are derived from the detailed classification systems developed for the 1990 census as described below. The *Classified Index of Industries and Occupations* provided additional information on the industry and occupation classification systems.

Respondents provided the data for the tabulations by writing on the questionnaires descriptions of their industry and occupation. These descriptions were keyed and passed through automated coding software which assigned a portion of the written entries to categories in the classification system. The automated system assigned codes to 59 percent of the industry entries and 38 percent of the occupation entries.

Those cases not coded by the computer were referred to clerical staff in the Census Bureau's Kansas City processing office for coding. The clerical staff converted the written questionnaire descriptions to codes by comparing these descriptions to entries in the *Alphabetical Index of Industries and Occupations*. For the industry code, these coders also referred to an Employer Name List (formerly called Company Name List). This list, prepared from the Standard Statistical Establishment List developed by the Census Bureau for the economic censuses and surveys, contained the names of business establishments and their Standard Industrial Classification (SIC) codes converted to population census equivalents. This list facilitated coding and maintained industrial classification comparability.

Industry

The industry classification system developed for the 1990 census consists of 235 categories for employed persons, classified into 13 major industry groups. Since 1940, the industrial classification has been based on the Standard Industrial Classification Manual (SIC). The 1990 census classification was developed from the 1987 SIC published by the Office of Management and Budget Executive Office of the President.

The SIC was designed primarily to classify establishments by the type of industrial activity in which they were engaged. However, census data, which were collected from households, differ in detail and nature from those obtained from establishment surveys. Therefore, the census classification systems, while defined in SIC terms, cannot reflect the full detail in all categories. There are several levels of industrial classification found in census products. For example, the 1990 CP-2, *Social and Economic Characteristics* report includes 41 unique industrial categories, while the 1990 Summary Tape File 4 (STF 4) presents 72 categories.

Occupation

The occupational classification system developed for the 1990 census consists of 500 specific occupational categories for employed persons arranged into 6 summary and 13 major occupational groups. This classification was developed to be consistent with the Standard Occupational Classification (SOC) Manual: 1980, published by the Office of Federal Statistical Policy and Standards, U.S. Department of Commerce. Tabulations with occupation as the primary characteristic present several levels of occupational detail. The most detailed tabulations are shown in a special 1990 subject report and tape files on occupation. These products contain all 500 occupational categories plus industry or class of worker subgroupings of occupational categories.

Some occupation groups are related closely to certain industries. Operators of transportation equipment, farm operators and workers, and private household workers account for major portions of their respective industries of transportation, agriculture, and private households. However, the industry categories include persons in other occupations. For example, persons employed in agriculture include truck drivers and bookkeepers; persons employed in the transportation industry include mechanics, freight handlers, and payroll clerks; and persons employed in the private household industry include occupations such as chauffeur, gardener, and secretary.

Class of Worker

The data on class of worker were derived from answers to questionnaire item 30. The information on class of worker refers to the same job as a respondent's industry and occupation and categorizes persons according to the type of ownership of the employing organization. The class of worker categories are defined as follows:

Private Wage and Salary Workers—Includes persons who worked for wages, salary, commission, tips, pay-in-kind, or piece rates for a private for profit employer or a private not-for-profit, tax-exempt or charitable organization. Self-employed persons whose business was incorporated are included with private wage and salary workers because they are paid employees of their own companies. Some tabulations present data separately for these subcategories: "For profit," "Not for profit," and "Own business incorporated."

Employees of foreign governments, the United Nations, or other formal international organizations were classified as "Private-not-for-profit."

Government Workers—Includes persons who were employees of any local, State, or Federal governmental unit, regardless of the activity of the particular agency. For some tabulations, the data were presented separately for the three levels of government.

Self-Employed Workers—Includes persons who worked for profit or fees in their own unincorporated business, profession, or trade, or who operated a farm.

Unpaid Family Workers—Includes persons who worked 15 hours or more without pay in a business or on a farm operated by a relative.

Salaried/Self-Employed—In tabulations that categorize persons as either salaried or self-employed, the salaried category includes private and government wage and salary workers; self-employed includes self-employed persons and unpaid family workers.

The industry category, "Public administration," is limited to regular government functions such as legislative, judicial, administrative, and regulatory activities of

governments. Other government organizations such as schools, hospitals, liquor stores, and bus lines are classified by industry according to the activity in which they are engaged. On the other hand, the class of worker government categories include all government workers.

Occasionally respondents supplied industry, occupation, or class of worker descriptions which were not sufficiently specific for precise classification or did not report on these items at all. Some of these cases were corrected through the field editing process and during the coding and tabulation operations. In the coding operation, certain types of incomplete entries were corrected using the *Alphabetical Index of Industries and Occupations*. For example, it was possible in certain situations to assign an industry code based on the occupation reported.

Following the coding operations, there was a computer edit and an allocation process. The edit first determined whether a respondent was in the universe which required an industry and occupation code. The codes for the three items (industry, occupation, and class of worker) were checked to ensure they were valid and were edited for their relation to each other. Invalid and inconsistent codes were either blanked or changed to a consistent code.

If one or more of the three codes were blank after the edit, a code was assigned from a "similar" person based on other items such as age, sex, education, farm or nonfarm residence, and weeks worked. If all the labor force and income data also were blank, all these economic items were assigned from one other person who provided all the necessary data.

Comparability—Comparability of industry and occupation data was affected by a number of factors, primarily the systems used to classify the questionnaire responses. For both the industry and occupation classification systems, the basic structures were generally the same from 1940 to 1970, but changes in the individual categories limited comparability of the data from one census to another. These changes were needed to recognize the "birth" of new industries and occupations, the "death" of others, and the growth and decline in existing industries and occupations, as well as, the desire of analysts and other users for more detail in the presentation of the data. Probably the greatest cause of incomparability is the movement of a segment of a category to a different category in the next census. Changes in the nature of jobs and respondent terminology, and refinement of category composition made these movements necessary.

In the 1990 census, the industry classification had minor revisions to reflect recent changes to the SIC. The 1990 occupational classification system is essentially the same as that for the 1980 census. However, the conversion of the census classification to the SOC in 1980 meant that the 1990 classification system was less comparable to the classifications used prior to the 1980 census.

Other factors that affected data comparability included the universe to which the data referred (in 1970, the age cutoff for labor force was changed from 14 years to 16 years); how the industry and occupation questions were worded on the questionnaire (for example, important changes were made in 1970); improvements in the coding procedures (the Employer Name List technique was introduced in 1960); and how the "not reported" cases are handled. Prior to 1970, they were placed in the residual categories, "Industry not reported" and "Occupation not reported." In 1970, an allocation process was introduced that assigned these cases to major groups. In 1990, as in 1980, the "Not reported" cases were assigned to individual categories. Therefore, the 1980 and 1990 data for individual categories included some numbers of persons who were tabulated in a "Not reported" category in previous censuses.

The following publications contain information on the various factors affecting comparability and are particularly useful for understanding differences in the occupation and industry information from earlier censuses: U.S. Bureau of the Census, *Changes Between the 1950 and 1960 Occupation and Industry Classifications With Detailed Adjustments of 1950 Data to the 1960 Classifications*, Technical Paper No. 18, 1968; U.S. Bureau of the Census, *1970 Occupation and Industry Classification Systems in Terms of their 1960 Occupation and Industry Elements*, Technical Paper No. 26, 1972; and U.S. Bureau of the Census, *The Relationship Between the 1970 and 1980 Industry and Occupation Classification Systems*, Technical Paper No. 59, 1988. For citations for earlier census years, see the 1980 Census of Population report, PC80-1-D, *Detailed Population Characteristics*.

The 1990 census introduced an additional class of worker category for "private not-for-profit" employers. This category is a subset of the 1980 category "employee of private employer" so there is no comparable data before 1990. Also in 1990, employees of foreign governments, the United Nations, etc., are classified as "private not-for-profit," rather than Federal Government as in 1970 and 1980. While in theory, there was a change in comparability, in practice, the small number of U.S. residents working for foreign governments made this change negligible.

Comparability between the statistics on industry and occupation from the 1990 census and statistics from other sources is affected by many of the factors described in the section on "Employment Status." These factors are primarily geographic differences between residence and place of work, different dates of reference, and differences in counts because of dual job holding. Industry data from population censuses cover all industries and all kinds of workers, whereas, data from

establishments often excluded private household workers, government workers, and the self-employed. Also, the replies from household respondents may have differed in detail and nature from those obtained from establishments.

Occupation data from the census and data from government licensing agencies, professional associations, trade unions, etc., may not be as comparable as expected. Organizational listings often include persons not in the labor force or persons devoting all or most of their time to another occupation; or the same person may be included in two or more different listings. In addition, relatively few organizations, except for those requiring licensing, attained complete coverage of membership in a particular occupational field.

JOURNEY TO WORK

Place of Work

The data on place of work were derived from answers to questionnaire item 22, which was asked of persons who indicated in question 21 that they worked at some time during the reference week. (For more information, see discussion under "Reference Week.")

Data were tabulated for workers 16 years and over; that is, members of the Armed Forces and civilians who were at work during the reference week. Data on place of work refer to the geographic location at which workers carried out their occupational activities during the reference week. The exact address (number and street) of the place of work was asked, as well as the place (city, town, or post office); whether or not the place of work was inside or outside the limits of that city or town; and the county, State, and ZIP Code. If the person's employer operated in more than one location, the exact address of the location or branch where the respondent worked was requested. When the number and street name were unknown, a description of the location, such as the building name or nearest street or intersection, was to be entered.

Persons who worked at more than one location during the reference week were asked to report the one at which they worked the greatest number of hours. Persons who regularly worked in several locations each day during the reference week were requested to give the address at which they began work each day. For cases in which daily work did not begin at a central place each day, the person was asked to provide as much information as possible to describe the area in which he or she worked most during the reference week.

In some tabulations, place-of-work locations may be defined as "in area of residence" and "outside area of residence." The area of residence may vary from table to table or even within a table, and refers to the particular area or areas shown. For example, in a table that provides data for counties, "in area of residence" refers to persons who worked in the same county in which they lived, while "outside area of residence" refers to persons whose workplace was located in a county different from the one in which they lived. Similarly, in a table that provides data for several types of areas, such as the State and its individual metropolitan areas (MA's), counties, and places, the place-of-work data will be variable and is determined by the geographic level (State, MA, county, or place) shown in each section of the tabulation.

In tabulations that present data for States, workplaces for the residents of the State may include, in addition to the State itself, each contiguous State. The category, "in noncontiguous State or abroad," includes persons who worked in a State that did not border their State of residence as well as persons who worked outside the United States.

In tabulations that present data for an MSA/PMSA, place-of-work locations are specified to show the main destinations of workers living in the MSA/PMSA. (For more information on metropolitan areas (MA's), see Appendix A, Area Classifications.) All place-of-work locations are identified with respect to the boundaries of the MSA/PMSA as "inside MSA/PMSA" or "outside MSA/PMSA." Locations within the MSA/PMSA are further divided into each central city, and each county or county balance. Selected large incorporated places also may be specified as places of work.

Within New England MSA/PMSA's, the places of work presented generally are cities and towns. Locations outside the MSA/PMSA are specified if they are important commuting destinations for residents of the MSA/PMSA, and may include adjoining MSA/PMSA's and their central cities, their component counties, large incorporated places, or counties, cities, or other geographic areas outside any MA. In tabulations for MSA/PMSA's in New England; Honolulu, Hawaii; and certain other MA's, some place-of-work locations are identified as "areas" (e.g., Area 1, Area 5, Area 12, etc.). Such areas consist of groups of towns, cities, census designated places (Honolulu MSA only), or counties that have been identified as unique place-of-work destinations. When an adjoining MSA/PMSA or MSA/PMSA remainder is specified as a place-of-work location, its components are not defined. However, the components are presented in the 1990 CP-1, *General Population Characteristics for Metropolitan Areas* and the 1990 CH-1, *General Housing Characteristics for Metropolitan Areas* reports. In tabulations that present data for census tracts outside MA's, place-of-work locations are defined as "in county of residence" and "outside county of residence."

In areas where the workplace address was coded to the block level, persons were tabulated as working inside or outside a specific place based on the location of that address, regardless of the response to question 22c concerning city/town limits. In areas where it was

impossible to code the workplace address to the block level, persons were tabulated as working in a place if a place name was reported in question 22b and the was left blank. In selected areas, census designated may be affected by the extent to which their census names were familiar to respondents, and by coding problems caused by similarities between the CDP name and the names of other geographic jurisdictions in the same vicinity.

Place-of-work data are given for selected minor civil divisions (generally, cities, towns, and townships) in the nine Northeastern States, based on the responses to the place-of-work question. Many towns and townships are regarded locally as equivalent to a place and therefore, were reported as the place of work. When a respondent reported a locality or incorporated place that formed a part of a township or town, the coding and tabulating procedure was designed to include the response in the total for the township or town. The accuracy of the place-of-work data for minor civil divisions is greatest for the New England States. However, the data for some New England towns, for towns in New York, and for townships in New Jersey and Pennsylvania may be affected by coding problems that resulted from the unfamiliarity of the respondent with the minor civil division in which the workplace was located or when a township and a city or borough of the same or similar name are located close together.

Place-of-work data may show a few workers who made unlikely daily work trips (e.g., workers who lived in New York and worked in California). This result is attributable to persons who worked during the reference week at a location that was different from their usual place of work, such as persons away from home on business.

Comparability—The wording of the question on place of work was substantially the same in the 1990 census as it was in 1980. However, data on place of work from the 1990 census are based on the full census sample, while data from the 1980 census were based on only about one-half of the full sample.

For the 1980 census, nonresponse or incomplete responses to the place-of-work question were not allocated, resulting in the use of "not reported" categories in the 1980 publications. However, for the 1990 census, when place of work was not reported or the response was incomplete, a work location was allocated to the person based on their means of transportation to work, travel time to work, industry, and location of residence and workplace of others. The 1990 publications, therefore, do not contain a "not reported" category for the place-of-work data.

Comparisons between 1980 and 1990 census data on the gross number of workers in particular commuting flows, or the total number of persons working in an area, should be made with extreme caution. Any apparent increase in the magnitude of the gross numbers may be cases have been distributed among specific place-of-

Limitation of the Data—The data on place of work relate to a reference week; that is, the calendar week preceding the date on which the respondents completed their questionnaires or were interviewed by enumerators. This week is not the same for all respondents because the enumeration was not completed in 1 week. However, for the majority of persons, the reference week for the 1990 census is the last week in March 1990. The lack of a uniform reference week means that the place-of-work data reported in the census will not exactly match the distribution of workplace locations observed or measured during an actual workweek.

The place-of-work data are estimates of persons 16 years old and over who were both employed and at work during the reference week (including persons in the Armed Forces). Persons who did not work during the reference week but had jobs or businesses from which they were temporarily absent due to illness, bad weather, industrial dispute, vacation, or other personal reasons are not included in the place-of-work data. Therefore, the data on place of work understate the total number of jobs or total employment in a geographic area during the reference week. It also should be noted that persons who had irregular, casual, or unstructured jobs during the reference week may have erroneously reported themselves as not working.

The address where the individual worked most often during the reference week was recorded on the census questionnaire. If a worker held two jobs, only data about the primary job (the one worked the greatest number of hours during the preceding week) was requested. Persons who regularly worked in several locations during the reference week were requested to give the address at which they began work each day. For cases in which daily work was not begun at a central place each day, the person was asked to provide as much information as possible to describe the area in which he or she worked most during the reference week.

Means of Transportation to Work

The data on means of transportation to work were derived from answers to questionnaire item 23a, which was asked of persons who indicated in question 21 that they worked at some time during the reference week. (For more information, see discussion under "Reference Week.") Means of transportation to work refers to the principal mode of travel or type of conveyance that the person usually used to get from home to work during the reference week.

Persons who used different means of transportation on different days of the week were asked to specify the one they used most often, that is, the greatest number of days. Persons who used more than one means of transportation to get to work each day were asked to report the one used for the longest distance during the work trip. The category, "Car, truck, or van," includes workers using a car (including company cars but excluding taxicabs), a truck of one-ton capacity or less, or a van. The category, "Public transportation," includes workers who used a bus or trolley bus, streetcar or trolley car, subway or elevated, railroad, ferryboat, or taxicab even if each mode is not shown separately in the tabulation. The category, "Other means," includes workers who used a mode of travel which is not identified separately within the data distribution. The category, "Other means," may vary from table to table, depending on the amount of detail shown in a particular distribution.

The means of transportation data for some areas may show workers using modes of public transportation that are not available in those areas (e.g., subway or elevated riders in an MA where there actually is no subway or elevated service). This result is largely due to persons who worked during the reference week at a location that was different from their usual place of work (such as persons away from home on business in an area where subway service was available) and persons who used more than one means of transportation each day but whose principal means was unavailable where they lived (for example, residents of nonmetropolitan areas who drove to the fringe of an MA and took the commuter railroad most of the distance to work).

Private Vehicle Occupancy

The data on private vehicle occupancy were derived from answers to questionnaire item 23b. This question was asked of persons who indicated in question 21 that they worked at some time during the reference week and who reported in question 23a that their means of transportation to work was "Car, truck, or van." (For more information, see discussion under "Reference Week.")

Private vehicle occupancy refers to the number of persons who usually rode to work in the vehicle during the reference week. The category, "Drove alone," includes persons who usually drove alone to work as well as persons who were driven to work by someone who then drove back home or to a nonwork destination. The category, "Carpooled," includes workers who reported that two or more persons usually rode to work in the vehicle during the reference week.

Persons Per Car, Truck, or Van—This is obtained by dividing the number of persons who reported using a car, truck, or van to get to work by the number of such vehicles that they used. The number of vehicles used is derived by counting each person who drove alone as one vehicle, each person who reported being in a two-person carpool as one-half vehicle, each person who reported being in a three-person carpool as one-third vehicle, and so on, and then summing all the vehicles.

Time Leaving Home to Go to Work

The data on time leaving home to go to work were derived from answers to questionnaire item 24a. This question was asked of persons who indicated in question 21 that they worked at some time during the reference week and who reported in question 23a that they worked outside their home. The departure time refers to the time of day that the person usually left home to go to work during the reference week. (For more information, see discussion under "Reference Week.")

Travel Time to Work

The data on travel time to work were derived from answers to questionnaire item 24b. This question was asked of persons who indicated in question 21 that they worked at some time during the reference week and who reported in question 23a that they worked outside their home. Travel time to work refers to the total number of minutes that it usually took the person to get from home to work during the reference week. The elapsed time includes time spent waiting for public transportation, picking up passengers in carpools, and time spent in other activities related to getting to work. (For more information, see discussion under "Reference Week.")

LANGUAGE SPOKEN AT HOME AND ABILITY TO SPEAK ENGLISH

Language Spoken at Home

Data on language spoken at home were derived from the answers to questionnaire items 15a and 15b, which were asked of a sample of persons born before April 1, 1985. Instructions mailed with the 1990 census questionnaire stated that a respondent should mark "Yes" in question 15a if the person sometimes or always spoke a language other than English at home and should not mark "Yes" if a language was spoken only at school or if speaking was limited to a few expressions or slang. For question 15b, respondents were instructed to print the name of the non-English language spoken at home. If the person spoke more than one language other than English, the person was to report the language spoken more often or the language learned first.

The cover of the census questionnaire included information in Spanish which provided a telephone number for respondents to call to request a census

questionnaire and instructions in Spanish. Instruction guides were also available in 32 other languages to assist enumerators who encountered households or respondents who spoke no English.

Questions 15a and 15b referred to languages spoken at home in an effort to measure the current use of languages other than English. Persons who knew languages other than English but did not use them at home or who only used them elsewhere were excluded. Persons who reported speaking a language other than English at home may also speak English; however, the questions did not permit determination of the main or dominant language of persons who spoke both English and another language. (For more information, see discussion below on "Ability to Speak English.")

For persons who indicated that they spoke a language other than English at home in question 15a, but failed to specify the name of the language in question 15b, the language was assigned based on the language of other speakers in the household; on the language of a person of the same Spanish origin or detailed race group living in the same or a nearby area; or on a person of the same ancestry or place of birth. In all cases where a person was assigned a non-English language, it was assumed that the language was spoken at home. Persons for whom the name of a language other than English was entered in question 15b, and for whom question 15a was blank were assumed to speak that language at home.

The write-in responses listed in question 15b (specific language spoken) were transcribed onto computer files and coded into more than 380 detailed language categories using an automated coding system. The automated procedure compared write-in responses reported by respondents with entries in a computer dictionary, which initially contained approximately 2,000 language names. The dictionary was updated with a large number of new names, variations in spelling, and a small number of residual categories. Each write-in response was given a numeric code that was associated with one of the detailed categories in the dictionary. If the respondent listed more than one non-English language, only the first was coded.

The write-in responses represented the names people used for languages they speak. They may not match the names or categories used by linguists. The sets of categories used are sometimes geographic and sometimes linguistic. Figure 1 provides an illustration of the content of the classification schemes used to present language data. For more information, write to the Chief, Population Division, U.S. Bureau of the Census, Washington, DC 20233.

Household Language—In households where one or more persons (age 5 years old or over) speak a language other than English, the household language assigned to all household members is the non-English language spoken by the first person with a non-English language in the following order: householder, spouse, parent, sibling, child, grandchild, other relative, stepchild, unmarried partner, housemate or roommate, roomer, boarder, or foster child, or other nonrelative. Thus, persons who speak only English may have a non-English household language assigned to them in tabulations of persons by household language.

Figure 1. **Four- and Twenty-Five-Group Classifications of 1990 Census Languages Spoken at Home with Illustrative Examples**

Four-Group Classification	Twenty-Five-Group Classification	Examples
Spanish	Spanish	Spanish, Ladino
Other Indo-European	French	French, Cajun, French Creole
	Italian	
	Portuguese	
	German	
	Yiddish	
	Other West Germanic	Afrikaans, Dutch, Pennsylvania Dutch
	Scandanavian	Danish, Norwegian, Swedish
	Polish	
	Russian	
	South Slavic	Serbocroatian, Bulgarian, Macedonian, Slovene
	Other Slavic	Czech, Slovak, Ukrainian
	Greek	
	Indic	Hindi, Bengali, Gujarathi, Punjabi, Romany, Sinhalese
	Other Indo-European, not elsewhere classified	Armenian, Gaelic, Lithuanian, Persian
Languages of Asia and the Pacific	Chinese	
	Japanese	
	Mon-Khmer	Cambodian
	Tagalog	
	Korean	
	Vietnamese	
	Other languages (part)	Chamorro, Dravidian languages, Hawaiian, Ilocano, Thai, Turkish
All other languages	Arabic	
	Hungarian	
	Native North American languages	
	Other languages (part)	Amharic, Syriac, Finnish, Hebrew, languages of Central and South America, Other languages of Africa

Ability to Speak English

Persons 5 years old and over who reported that they spoke a language other than English in question 15a were also asked in question 15c to indicate their ability to speak English based on one of the following categories: "Very well," "Well," "Not well," or "Not at all."

The data on ability to speak English represent the person's own perception about his or her own ability or, because census questionnaires are usually completed

by one household member, the responses may represent the perception of another household member. The instruction guides and questionnaires that were mailed to households did not include any information on how to interpret the response categories in question 15c.

Persons who reported that they spoke a language other than English at home but whose ability to speak English was not reported, were assigned the English-language ability of a randomly selected person of the same age, Spanish origin, nativity and year of entry, and language group.

Linguistic Isolation—A household in which no person age 14 years or over speaks only English and no person age 14 years or over who speaks a language other than English speaks English "Very well" is classified as "linguistically isolated." All the members of a linguistically isolated household are tabulated as linguistically isolated, including members under age 14 years who may speak only English.

Limitation of the Data—Persons who speak a language other than English at home may have first learned that language at school. However, these persons would be expected to indicate that they spoke English "Very well." Persons who speak a language other than English, but do not do so *at home,* should have been reported as not speaking a language other than English at home.

The extreme detail in which language names were coded may give a false impression of the linguistic precision of these data. The names used by speakers of a language to identify it may reflect ethnic, geographic, or political affiliations and do not necessarily respect linguistic distinctions. The categories shown in the tabulations were chosen on a number of criteria, such as information about the number of speakers of each language that might be expected in a sample of the United States population.

Comparability—Information on language has been collected in every census since 1890. The comparability of data among censuses is limited by changes in question wording, by the subpopulations to whom the question was addressed, and by the detail that was published.

The same question on language was asked in the 1980 and 1990 censuses. This question on the current language spoken at home replaced the questions asked in prior censuses on mother tongue; that is, the language other than English spoken in the person's home when he or she was a child; one's first language; or the language spoken before immigrating to the United States. The censuses of 1910-1940, 1960 and 1970 included questions on mother tongue. A change in coding procedure from 1980 to 1990 should have improved accuracy of coding and may affect the number of persons reported in some of the 380 plus categories. It should not greatly affect the 4-group or 25- group lists. In 1980, coding clerks supplied numeric codes for the written entries on each questionnaire using a 2,000 name reference list. In 1990 written entries were transcribed to a computer file and matched to a computer dictionary which began with the 2,000 name list, but expanded as unmatched names were referred to headquarters specialists for resolution.

The question on ability to speak English was asked for the first time in 1980. In tabulations from 1980, the categories "Very well" and "Well" were combined. Data from other surveys suggested a major difference between the category "Very well" and the remaining categories. In tabulations showing ability to speak English, persons who reported that they spoke English "Very well" are presented separately from persons who reported their ability to speak English as less than "Very well."

MARITAL STATUS

The data on marital status were derived from answers to questionnaire item 6, which was asked of all persons. The marital status classification refers to the status at the time of enumeration. Data on marital status are tabulated only for persons 15 years old and over.

All persons were asked whether they were "now married," "widowed," "divorced," "separated," or "never married." Couples who live together (unmarried persons, persons in common-law marriages) were allowed to report the marital status they considered the most appropriate.

Never Married—Includes all persons who have never been married, including persons whose only marriage(s) was annulled.

Ever Married—Includes persons married at the time of enumeration (including those separated), widowed, or divorced.

Now Married, Except Separated—Includes persons whose current marriage has not ended through widowhood, divorce, or separation (regardless of previous marital history). The category may also include couples who live together or persons in common-law marriages if they consider this category the most appropriate. In certain tabulations, currently married persons are further classified as "spouse present" or "spouse absent."

Separated—Includes persons legally separated or otherwise absent from their spouse because of marital discord. Included are persons who have been deserted or who have parted because they no longer want to live together but who have not obtained a divorce.

Widowed—Includes widows and widowers who have not remarried.

Divorced—Includes persons who are legally divorced and who have not remarried.

In selected sample tabulations, data for married and separated persons are reorganized and combined with information on the presence of the spouse in the same household.

Now Married—All persons whose current marriage has not ended by widowhood or divorce. This category includes persons defined above as "separated."

Spouse Present—Married persons whose wife or husband was enumerated as a member of the same household, including those whose spouse may have been temporarily absent for such reasons as travel or hospitalization.

Spouse Absent—Married persons whose wife or husband was not enumerated as a member of the same household. This category also includes all married persons living in group quarters.

Separated—Defined above.

Spouse Absent, Other—Married persons whose wife or husband was not enumerated as a member of the same household, excluding separated. Included is any person whose spouse was employed and living away from home or in an institution or absent in the Armed Forces.

Differences between the number of currently married males and the number of currently married females occur because of reporting differences and because some husbands and wives have their usual residence in different areas. In sample tabulations, these differences can also occur because different weights are applied to the individual's data. Any differences between the number of "now married, spouse present" males and females are due solely to sample weighting. By definition, the numbers would be the same.

When marital status was not reported, it was imputed according to the relationship to the householder and sex and age of the person. (For more information on imputation, see Appendix C, Accuracy of the Data.)

Comparability—The 1990 marital status definitions are the same as those used in 1980 with the exception of the term "never married" which replaces the term "single" in tabulations. A general marital status question has been asked in every census since 1880.

MOBILITY LIMITATION STATUS

The data on mobility limitation status were derived from answers to questionnaire item 19a, which was asked of a sample of persons 15 years old and over. Persons were identified as having a mobility limitation if they had a health condition that had lasted for 6 or more months and which made it difficult to go outside the home alone. Examples of outside activities on the questionnaire included shopping and visiting the doctor's office.

The term "health condition" referred to both physical and mental conditions. A temporary health problem, such as a broken bone that was expected to heal normally, was not considered a health condition.

Comparability—This was the first time that a question on mobility limitation was included in the census.

PLACE OF BIRTH

The data on place of birth were derived from answers to questionnaire item 8, which was asked on a sample basis. The place-of-birth question asked respondents to report the U.S. State, commonwealth or territory, or the foreign country where they were born. Persons born outside the United States were asked to report their place of birth according to current international boundaries. Since numerous changes in boundaries of foreign countries have occurred in the last century, some persons may have reported their place of birth in terms of boundaries that existed at the time of their birth or emigration, or in accordance with their own national preference.

Persons not reporting place of birth were assigned the birthplace of another family member or were allocated the response of another person with similar characteristics. Persons allocated as foreign born were not assigned a specific country of birth but were classified as "Born abroad, country not specified."

Nativity—Information on place of birth and citizenship were used to classify the population into two major categories: native and foreign born. When information on place of birth was not reported, nativity was assigned on the basis of answers to citizenship, if reported, and other characteristics.

Native—Includes persons born in the United States, Puerto Rico, or an outlying area of the United States. The small number of persons who were born in a foreign country but have at least one American parent also are included in this category.

The native population is classified in the following groups: persons born in the State in which they resided at the time of the census; persons born in a different State, by region; persons born in Puerto Rico or an outlying area of the U.S.; and persons born abroad with at least one American parent.

Foreign Born—Includes persons not classified as "Native." Prior to the 1970 census, persons not reporting place of birth were generally classified as native.

The foreign-born population is shown by selected area, country, or region of birth: the places of birth shown in data products were selected based on the number of respondents who reported that area or country of birth.

Comparability—Data on the State of birth of the native population have been collected in each census beginning with that of 1850. Similar data were shown in tabulations for the 1980 census and other recent censuses. Nonresponse was allocated in a similar manner in 1980; however, prior to 1980, nonresponse to the place of birth question was not allocated. Prior to the 1970 census, persons not reporting place of birth were generally classified as native.

The questionnaire instruction to report mother's State of residence instead of the person's actual State of birth (if born in a hospital in a different State) was dropped in 1990. Evaluation studies of 1970 and 1980 census data demonstrated that this instruction was generally either ignored or misunderstood. Since the hospital and the mother's residence is in the same State for most births, this change may have a slight effect on State of birth data for States with large metropolitan areas that straddle State lines.

POVERTY STATUS IN 1989

The data on poverty status were derived from answers to the same questions as the income data, questionnaire items 32 and 33. (For more information, see the discussion under "Income in 1989.") Poverty statistics presented in census publications were based on a definition originated by the Social Security Administration in 1964 and subsequently modified by Federal interagency committees in 1969 and 1980 and prescribed by the Office of Management and Budget in Directive 14 as the standard to be used by Federal agencies for statistical purposes.

At the core of this definition was the 1961 economy food plan, the least costly of four nutritionally adequate food plans designed by the Department of Agriculture. It was determined from the Agriculture Department's 1955 survey of food consumption that families of three or more persons spend approximately one-third of their income on food; hence, the poverty level for these families was set at three times the cost of the economy food plan. For smaller families and persons living alone, the cost of the economy food plan was multiplied by factors that were slightly higher to compensate for the relatively larger fixed expenses for these smaller households.

The income cutoffs used by the Census Bureau to determine the poverty status of families and unrelated individuals included a set of 48 thresholds arranged in a two-dimensional matrix consisting of family size (from one person to nine or more persons) cross-classified by presence and number of family members under 18 years old (from no children present to eight or more children present). Unrelated individuals and two-person families were further differentiated by age of the householder (under 65 years old and 65 years old and over).

The total income of each family or unrelated individual in the sample was tested against the appropriate poverty threshold to determine the poverty status of that family or unrelated individual. If the total income was less than the corresponding cutoff, the family or unrelated individual was classified as "below the poverty level." The number of persons below the poverty level was the sum of the number of persons in families with incomes below the poverty level and the number of unrelated individuals with incomes below the poverty level.

The poverty thresholds are revised annually to allow for changes in the cost of living as reflected in the Consumer Price Index. The average poverty threshold for a family of four persons was $12,674 in 1989. (For

Table A. **Poverty Thresholds in 1989 by Size of Family and Number of Related Children Under 18 Years**

Size of Family Unit	Weighted average thresholds	Related children under 18 years								
		None	One	Two	Three	Four	Five	Six	Seven	Eight or more
One person (unrelated individual)	$6,310									
Under 65 years	6 451	$6,451								
65 years and over	5,947	5,947								
Two persons	8,076									
Householder under 65 years	8,343	8,303	$8,547							
Householder 65 years and over	7,501	7,495	8,515							
Three persons	9,885	9,699	9,981	$9,990						
Four persons	12,674	12,790	12,999	12,575	$12,619					
Five persons	14,990	15,424	15,648	15,169	14,798	$14,572				
Six persons	16,921	17,740	17,811	17,444	17,092	16,569	$16,259			
Seven persons	19,162	20,412	20,540	20,101	19,794	19,224	18,558	$17,828		
Eight persons	21,328	22,830	23,031	22,617	22,253	21,738	21,084	20,403	$20,230	
Nine or more persons	25,480	27,463	27,596	27,229	26,921	26,415	25,719	25,089	24,933	$23,973

more information, see table A below.) Poverty thresholds were applied on a national basis and were not adjusted for regional, State or local variations in the cost of living. For a detailed discussion of the poverty definition, see U.S. Bureau of the Census, Current Population Reports, Series P-60, No. 171, *Poverty in the United States: 1988 and 1989.*

Persons for Whom Poverty Status is Determined—Poverty status was determined for all persons except institutionalized persons, persons in military group quarters and in college dormitories, and unrelated individuals under 15 years old. These groups also were excluded from the denominator when calculating poverty rates.

Specified Poverty Levels—Since the poverty levels currently in use by the Federal Government do not meet all the needs of data users, some of the data are presented for alternate levels. These specified poverty levels are obtained by multiplying the income cutoffs at the poverty level by the appropriate factor. For example, the average income cutoff at 125 percent of poverty level was $15,843 ($12,674 x 1.25) in 1989 for a family of four persons.

Weighted Average Thresholds at the Poverty Level—The average thresholds shown in the first column of table A are weighted by the presence and number of children. For example, the weighted average threshold for a given family size is obtained by multiplying the threshold for each presence and number of children category within the given family size by the number of families in that category. These products are then aggregated across the entire range of presence and number of children categories, and the aggregate is divided by the total number of families in the group to yield the weighted average threshold at the poverty level for that family size.

Since the basic thresholds used to determine the poverty status of families and unrelated individuals are applied to all families and unrelated individuals, the weighted average poverty thresholds are derived using all families and unrelated individuals rather than just those classified as being below the poverty level. To obtain the weighted poverty thresholds for families and unrelated individuals below alternate poverty levels, the weighted thresholds shown in table A may be multiplied directly by the appropriate factor. The weighted average thresholds presented in the table are based on the March 1990 Current Population Survey. However, these thresholds would not differ significantly from those based on the 1990 census.

Income Deficit—Represents the difference between the total income of families and unrelated individuals below the poverty level and their respective poverty thresholds. In computing the income deficit, families reporting a net income loss are assigned zero dollars and for such cases the deficit is equal to the poverty threshold.

This measure provided an estimate of the amount which would be required to raise the incomes of all poor families and unrelated individuals to their respective poverty thresholds. The income deficit is thus a measure of the degree of impoverishment of a family or unrelated individual. However, caution must be used in comparing the average deficits of families with different characteristics. Apparent differences in average income deficits may, to some extent, be a function of differences in family size.

Mean Income Deficit—Represents the amount obtained by dividing the total income deficit of a group below the poverty level by the number of families (or unrelated individuals) in that group.

Comparability—The poverty definition used in the 1990 and 1980 censuses differed slightly from the one used in the 1970 census. Three technical modifications were made to the definition used in the 1970 census as described below:

1. The separate thresholds for families with a female householder with no husband present and all other families were eliminated. For the 1980 and 1990 censuses, the weighted average of the poverty thresholds for these two types of families was applied to all types of families, regardless of the sex of the householder.
2. Farm families and farm unrelated individuals no longer had a set of poverty thresholds that were lower than the thresholds applied to nonfarm families and unrelated individuals. The farm thresholds were 85 percent of the corresponding levels for nonfarm families in the 1970 census. The same thresholds were applied to all families and unrelated individuals regardless of residence in 1980 and 1990.
3. The thresholds by size of family were extended from seven or more persons in 1970 to nine or more persons in 1980 and 1990.

These changes resulted in a minimal increase in the number of poor at the national level. For a complete discussion of these modifications and their impact, see the Current Population Reports, Series P-60, No. 133.

The population covered in the poverty statistics derived from the 1980 and 1990 censuses was essentially the same as in the 1970 census. The only difference was that in 1980 and 1990, unrelated individuals under 15 years old were excluded from the poverty universe, while in 1970, only those under 14 years old were excluded. The poverty data from the 1960 census excluded all persons in group quarters and included all unrelated individuals regardless of age. It was unlikely that these differences in population coverage would have had significant impact when comparing the poverty data for persons since the 1960 censuses.

Current Population Survey—Because of differences in the questionnaires and data collection procedures, estimates of the number of persons below the poverty level by various characteristics from the 1990 census may differ from those reported in the March 1990 Current Population Survey.

RACE

The data on race were derived from answers to questionnaire item 4, which was asked of all persons. The concept of race as used by the Census Bureau reflects self-identification; it does not denote any clear-cut scientific definition of biological stock. The data for race represent self-classification by people according to the race with which they most closely identify. Furthermore, it is recognized that the categories of the race item include both racial and national origin or sociocultural groups.

During direct interviews conducted by enumerators, if a person could not provide a single response to the race question, he or she was asked to select, based on self-identification, the group which best described his or her racial identity. If a person could not provide a single race response, the race of the mother was used. If a single race response could not be provided for the person's mother, the first race reported by the person was used. In all cases where occupied housing units, households, or families are classified by race, the race of the householder was used.

The racial classification used by the Census Bureau generally adheres to the guidelines in Federal Statistical Directive No. 15, issued by the Office of Management and Budget, which provides standards on ethnic and racial categories for statistical reporting to be used by all Federal agencies. The racial categories used in the 1990 census data products are provided below.

White—Includes persons who indicated their race as "White" or reported entries such as Canadian, German, Italian, Lebanese, Near Easterner, Arab, or Polish.

Black—Includes persons who indicated their race as "Black or Negro" or reported entries such as African American, Afro-American, Black Puerto Rican, Jamaican, Nigerian, West Indian, or Haitian.

American Indian, Eskimo, or Aleut—Includes persons who classified themselves as such in one of the specific race categories identified below.

American Indian—Includes persons who indicated their race as "American Indian," entered the name of an Indian tribe, or reported such entries as Canadian Indian, French-American Indian, or Spanish-American Indian.

American Indian Tribe—Persons who identified themselves as American Indian were asked to report their enrolled or principal tribe. Therefore, tribal data in tabulations reflect the written tribal entries reported on the questionnaires. Some of the entries (for example, Iroquois, Sioux, Colorado River, and Flathead) represent nations or reservations.

The information on tribe is based on self-identification and therefore does not reflect any designation of Federally- or State-recognized tribe. Information on American Indian tribes is presented in summary tape files and special data products. The information is derived from the American Indian Detailed Tribal Classification List for the 1990 census. The classification list represents all tribes, bands, and clans that had a specified number of American Indians reported on the census questionnaire.

Eskimo—Includes persons who indicated their race as "Eskimo" or reported entries such as Arctic Slope, Inupiat, and Yupik.

Aleut—Includes persons who indicated their race as "Aleut" or reported entries such as Alutiiq, Egegik, and Pribilovian.

Asian or Pacific Islander—Includes persons who reported in one of the Asian or Pacific Islander groups listed on the questionnaire or who provided write-in responses such as Thai, Nepali, or Tongan. A more detailed listing of the groups comprising the Asian or Pacific Islander population is presented in figure 2 below. In some data products, information is presented separately for the Asian population and the Pacific Islander population.

Asian—Includes "Chinese," "Filipino," "Japanese," "Asian Indian," "Korean," "Vietnamese," and "Other Asian." In some tables, "Other Asian" may not be shown separately, but is included in the total Asian population.

Chinese—Includes persons who indicated their race as "Chinese" or who identified themselves as Cantonese, Tibetan, or Chinese American. In standard census reports, persons who reported as "Taiwanese" or "Formosan" are included here with Chinese. In special reports on the Asian or Pacific Islander population, information on persons who identified themselves as Taiwanese are shown separately.

Filipino—Includes persons who indicated their race as "Filipino" or reported entries such as Philipino, Philipine, or Filipino American.

Japanese—Includes persons who indicated their race as "Japanese" and persons who identified themselves as Nipponese or Japanese American.

Asian Indian—Includes persons who indicated their race as "Asian Indian" and persons who identified themselves as Bengalese, Bharat, Dravidian, East Indian, or Goanese.

Korean—Includes persons who indicated their race as "Korean" and persons who identified themselves as Korean American.

Vietnamese—Includes persons who indicated their race as "Vietnamese" and persons who identified themselves as Vietnamese American.

Cambodian—Includes persons who provided a write-in response such as Cambodian or Cambodia.

Hmong—Includes persons who provided a write-in response such as Hmong, Laohmong, or Mong.

Laotian—Includes persons who provided a write-in response such as Laotian, Laos, or Lao.

Thai—Includes persons who provided a write-in response such as Thai, Thailand, or Siamese.

Other Asian—Includes persons who provided a write-in response of Bangladeshi, Burmese, Indonesian, Pakistani, Sri Lankan, Amerasian, or Eurasian. See figure 2 for other groups comprising "Other Asian."

Pacific Islander—Includes persons who indicated their race as "Pacific Islander" by classifying themselves into one of the following groups or identifying themselves as one of the Pacific Islander cultural groups of Polynesian, Micronesian, or Melanesian.

Hawaiian—Includes persons who indicated their race as "Hawaiian" as well as persons who identified themselves as Part Hawaiian or Native Hawaiian.

Samoan—Includes persons who indicated their race as "Samoan" or persons who identified themselves as American Samoan or Western Samoan.

Guamanian—Includes persons who indicated their race as "Guamanian" or persons who identified themselves as Chamorro or Guam.

Other Pacific Islander—Includes persons who provided a write-in response of a Pacific Islander group such as Tahitian, Northern Mariana Islander, Palauan, Fijian, or a cultural group such as Polynesian, Micronesian, or Melanesian. See figure 2 for other groups comprising "Other Pacific Islander."

Other Race—Includes all other persons not included in the "White," "Black," "American Indian, Eskimo, or Aleut," and the "Asian or Pacific Islander" race categories described above. Persons reporting in the "Other race" category and providing write-in entries such as multiracial, multiethnic, mixed, interracial, Wesort, or a Spanish/Hispanic origin group (such as Mexican, Cuban, or Puerto Rican) are included here.

Written entries to three categories on the race item—"Indian (Amer.)," "Other Asian or Pacific Islander (API)," and "Other race"—were reviewed, edited, and coded by subject matter specialists. (For more information on the coding operation, see the section below that discusses "Comparability.")

The written entries under "Indian (Amer.)" and "Other Asian or Pacific Islander (API)" were reviewed and coded during 100-percent processing of the 1990 census questionnaires. A substantial portion of the entries for the "Other race" category also were reviewed, edited, and coded during the 100-percent processing. The remaining entries under "Other race" underwent review and coding during sample processing. Most of the written entries reviewed and coded during sample processing were those indicating Hispanic origin such as Mexican, Cuban, or Puerto Rican.

If the race entry for a member of a household was missing on the questionnaire, race was assigned based upon the reported entries of race by other household members using specific rules of precedence of household relationship. For example, if race was missing for the daughter of the householder, then the race of her mother (as female householder or female spouse) would be assigned. If there was no female householder or spouse in the household, the daughter would be assigned her father's (male householder) race. If race was not reported for anyone in the household, the race of a householder in a previously processed household was assigned. This procedure is a variation of the general imputation procedures described in Appendix C, Accuracy of the Data.

Limitation of the Data—In the 1980 census, a relatively high proportion (20 percent) of American Indians did not report any tribal entry in the race item. Evaluation of the pre-census tests indicated that changes made for the 1990 race item should improve the reporting of tribes in the rural areas (especially on reservations) for the 1990 census. The results for urban areas were inconclusive. Also, the precensus tests indicated that there may be overreporting of the Cherokee tribe. An evaluation of 1980 census data showed overreporting of Cherokee in urban areas or areas where the number of American Indians was sparse.

In the 1990 census, respondents sometimes did not fill in a circle or filled the "Other race" circle and wrote in a response, such as Arab, Polish, or African American in the shared write-in box for "Other race" and "Other

API" responses. During the automated coding process, these responses were edited and assigned to the appropriate racial designation. Also, some Hispanic origin persons did not fill in a circle, but provided entries such as Mexican or Puerto Rican. These persons were classified in the "Other race" category during the coding and editing process. There may be some minor differences between sample data and 100-percent data because sample processing included additional edits not included in the 100-percent processing.

Figure 2. **Asian or Pacific Islander Groups Reported in the 1990 Census**

Asian	Pacific Islander
Chinese	Hawaiian
Filipino	Samoan
Japanese	Guamanian
Asian Indian	Other Pacific Islander[1]
Korean	Carolinian
Vietnamese	Fijian
Cambodian	Kosraean
Hmong	Melanesian[3]
Laotian	Micronesian[3]
Thai	Northern Mariana Islander
Other Asian[1]	Palauan
Bangladeshi	Papua New Guinean
Bhutanese	Ponapean (Pohnpeian)
Borneo	Polynesian[3]
Burmese	Solomon Islander
Celebesian	Tahitian
Ceram	Tarawa Islander
Indochinese	Tokelauan
Indonesian	Tongan
Iwo-Jiman	Trukese (Chuukese)
Javanese	Yapese
Malayan	Pacific Islander, not specified
Maldivian	
Nepali	
Okinawan	
Pakistani	
Sikkim	
Singaporean	
Sri Lankan	
Sumatran	
Asian, not specified[2]	

[1]In some data products, specific groups listed under "Other Asian" or "Other Pacific Islander" are shown separately. Groups not shown are tabulated as "All other Asian" or "All other Pacific Islander," respectively.

[2]Includes entries such as Asian American, Asian, Asiatic, Amerasian, and Eurasian.

[3]Polynesian, Micronesian, and Melanesian are Pacific Islander cultural groups.

Comparability—Differences between the 1990 census and earlier censuses affect the comparability of data for certain racial groups and American Indian tribes. The 1990 census was the first census to undertake, on a 100-percent basis, an automated review, edit, and coding operation for written responses to the race item. The automated coding system used in the 1990 census greatly reduced the potential for error associated with a clerical review. Specialists with a thorough knowledge of the race subject matter reviewed, edited, coded, and resolved inconsistent or incomplete responses. In the 1980 census, there was only a limited clerical review of the race responses on the 100-percent forms with a full clerical review conducted only on the sample questionnaires.

Another major difference between the 1990 and preceding censuses is the handling of the write-in responses for the Asian or Pacific Islander populations. In addition to the nine Asian or Pacific Islander categories shown on the questionnaire under the spanner "Asian or Pacific Islander (API)," the 1990 census race item provided a new residual category, "Other API," for Asian or Pacific Islander persons who did not report in one of the listed Asian or Pacific Islander groups. During the coding operation, write-in responses for "Other API" were reviewed, coded, and assigned to the appropriate classification. For example, in 1990, a write-in entry of Laotian, Thai, or Javanese is classified as "Other Asian," while a write-in entry of Tongan or Fijian is classified as "Other Pacific Islander." In the 1990 census, these persons were able to identify as "Other API" in both the 100-percent and sample operations.

In the 1980 census, the nine Asian or Pacific Islander groups were also listed separately. However, persons not belonging to these nine groups wrote in their specific racial group under the "Other" race category. Persons with a written entry such as Laotian, Thai, or Tongan, were tabulated and published as "Other race" in the 100-percent processing operation in 1980, but were reclassified as "Other Asian and Pacific Islander" in 1980 sample tabulations. In 1980 special reports on the Asian or Pacific Islander populations, data were shown separately for "Other Asian" and "Other Pacific Islander."

The 1970 questionnaire did not have separate race categories for Asian Indian, Vietnamese, Samoan, and Guamanian. These persons indicated their race in the "Other" category and later, through the editing process, were assigned to a specific group. For example, in 1970, Asian Indians were reclassified as "White," while Vietnamese, Guamanians, and Samoans were included in the "Other" category.

Another difference between 1990 and preceding censuses is the approach taken when persons of Spanish/Hispanic origin did not report in a specific race category but reported as "Other race" or "Other." These persons commonly provided a write-in entry such as Mexican, Venezuelan, or Latino. In the 1990 and 1980 censuses, these entries remained in the "Other race" or "Other" category, respectively. In the 1970 census, most of these persons were included in the "White" category.

REFERENCE WEEK

The data on labor force status and journey to work were related to the reference week; that is, the calendar week preceding the date on which the respondents

completed their questionnaires or were interviewed by enumerators. This week is not the same for all respondents since the enumeration was not completed in one week. The occurrence of holidays during the enumeration period could affect the data on actual hours worked during the reference week, but probably had no effect on overall measurement of employment status (see the discussion below on "Comparability").

Comparability—The reference weeks for the 1990 and 1980 censuses differ in that Passover and Good Friday occurred in the first week of April 1980, but in the second week of April 1990. Many workers presumably took time off for those observances. The differing occurrence of these holidays could affect the comparability of the 1990 and 1980 data on actual hours worked for some areas if the respective weeks were the reference weeks for a significant number of persons. The holidays probably did not affect the overall measurement of employment status since this information was based on work activity during the entire reference week.

RESIDENCE IN 1985

The data on residence in 1985 were derived from answers to question 14b, which asked for the State (or foreign country), county, and place of residence on April 1, 1985 for those persons reporting in question 14a that on that date they lived in a different house than their current residence. Residence in 1985 is used in conjunction with location of current residence to determine the extent of residential mobility of the population and the resulting redistribution of the population across the various States, metropolitan areas, and regions of the country.

When no information on residence in 1985 was reported for a person, information for other family members, if available, was used to assign a location of residence in 1985. All cases of nonresponse or incomplete response that were not assigned a previous residence based on information from other family members were allocated the previous residence of another person with similar characteristics who provided complete information.

The tabulation category, "Same house," includes all persons 5 years old and over who did not move during the 5 years as well as those who had moved but by 1990 had returned to their 1985 residence. The category, "Different house in the United States," includes persons who lived in the United States in 1985 but in a different house or apartment from the one they occupied on April 1, 1990. These movers are then further subdivided according to the type of move.

In most tabulations, movers are divided into three groups according to their 1985 residence: "Different house, same county," "Different county, same State," and "Different State." The last group may be further subdivided into region of residence in 1985. The category, "Abroad," includes those persons who were residing in a foreign country, Puerto Rico, or an outlying area of the U.S. in 1985, including members of the Armed Forces and their dependents. Some tabulations show movers who were residing in Puerto Rico or an outlying area in 1985 separately from those residing in other countries.

In tabulations for metropolitan areas, movers are categorized according to the metropolitan status of their current and previous residences, resulting in such groups as movers within an MSA/PMSA, movers between MSA/PMSA's, movers from nonmetropolitan areas to MSA/PMSA, and movers from central cities to the remainder of an MSA/PMSA. In some tabulations, these categories are further subdivided by size of MSA/PMSA, region of current or previous residence, or movers within or between central cities and the remainder of the same or a different MSA/PMSA.

The size categories used in some tabulations for both 1985 and 1990 residence refer to the populations of the MSA/PMSA on April 1, 1990; that is, at the end of the migration interval.

Some tabulations present data on inmigrants, outmigrants, and net migration. "Inmigrants" are generally defined as those persons who entered a specified area by crossing its boundary from some point outside the area. In some tabulations, movers from abroad are included in the number of inmigrants; in others, only movers within the United States are included.

"Outmigrants" are persons who depart from a specific area by crossing its boundary to a point outside it, but without leaving the United States. "Net migration" is calculated by subtracting the number of outmigrants from the number of inmigrants and, depending upon the particular tabulation, may or may not include movers from abroad. The net migration for the area is net inmigration if the result was positive and net outmigration if the result was negative. In the tabulations, net outmigration is indicated by a minus sign (-).

Inmigrants and outmigrants for States include only those persons who did not live in the same State in 1985 and 1990; that is, they exclude persons who moved between counties within the same State. Thus, the sum of the inmigrants to (or outmigrants from) all counties in any State is greater than the number of inmigrants to (or outmigrants from) that State. However, in the case of net migration, the sum of the nets for all the counties within a State equal the net for the State. In the same fashion, the net migration for a division or region equals the sum of the nets for the States comprising that division or region, while the number of inmigrants and outmigrants for that division or region is less than the sum of the inmigrants or outmigrants for the individual States.

The number of persons who were living in a different house in 1985 is somewhat less than the total number of moves during the 5-year period. Some persons in the

same house at the two dates had moved during the 5-year period but by the time of the census had returned to their 1985 residence. Other persons who were living in a different house had made one or more intermediate moves. For similar reasons, the number of persons living in a different county, MSA/PMSA, or State or moving between nonmetropolitan areas may be understated.

Comparability—Similar questions were asked on all previous censuses beginning in 1940, except the questions in 1950 referred to residence 1 year earlier rather than 5 years earlier. Although the questions in the 1940 census covered a 5-year period, comparability with that census was reduced somewhat because of different definitions and categories of tabulation. Comparability with the 1960 and 1970 census is also somewhat reduced because nonresponse was not allocated in those earlier censuses. For the 1980 census, nonresponse was allocated in a manner similar to the 1990 allocation scheme.

SCHOOL ENROLLMENT AND LABOR FORCE STATUS

Tabulation of data on enrollment, educational attainment, and labor force status for the population 16 to 19 years old allows for calculation of the proportion of the age group who are not enrolled in school and not high school graduates or "dropouts" and an unemployment rate for the "dropout" population. Definitions of the three topics and descriptions of the census items from which they were derived are presented in "Educational Attainment," "Employment Status," and "School Enrollment and Type of School." The published tabulations include both the civilian and Armed Forces populations, but labor force status is provided for the civilian population only. Therefore, the component labor force statuses may not add to the total lines *enrolled in school, high school graduate,* and *not high school graduate.* The difference is Armed Forces.

Comparability—The tabulation of school enrollment by labor force status is similar to that published in 1980 census reports. The 1980 census tabulation included a single data line for Armed Forces; however, enrollment, attainment, and labor force status data were shown for the civilian population only. In 1970, a tabulation was included for 16 to 21 year old males not attending school.

SCHOOL ENROLLMENT AND TYPE OF SCHOOL

Data on school enrollment were derived from answers to questionnaire item 11, which was asked of a sample of persons. Persons were classified as enrolled in school if they reported attending a "regular" public or private school or college at any time between February 1, 1990 and the time of enumeration. The question included instructions to "include only nursery school, kindergarten, elementary school, and schooling which would lead to a high school diploma or a college degree" as regular school. Instructions included in the 1990 respondent instruction guide, which was mailed with the census questionnaire, further specified that enrollment in a trade or business school, company training, or tutoring were not to be included unless the course would be accepted for credit at a regular elementary school, high school, or college. Persons who did not answer the enrollment question were assigned the enrollment status and type of school of a person with the same age, race or Hispanic origin, and, at older ages, sex, whose residence was in the same or a nearby area.

Public and Private School—Includes persons who attended school in the reference period and indicated they were enrolled by marking one of the questionnaire categories for either "public school, public college" or "private school, private college." The instruction guide defines a public school as "any school or college controlled and supported by a local, county, State, or Federal Government." "Schools supported and controlled primarily by religious organizations or other private groups" are defined as private. Persons who filled both the "public" and "private" circles are edited to the first entry, "public."

Level of School in Which Enrolled—Persons who were enrolled in school were classified as enrolled in "preprimary school," "elementary or high school," or "college" according to their response to question 12 (years of school completed or highest degree received). Persons who were enrolled and reported completing nursery school or less were classified as enrolled in "preprimary school," which includes kindergarten. Similarly, enrolled persons who had completed at least kindergarten, but not high school, were classified as enrolled in elementary or high school. Enrolled persons who reported completing high school or some college or having received a post-secondary degree were classified as enrolled in "college." Enrolled persons who reported completing the twelfth grade but receiving "NO DIPLOMA" were classified as enrolled in high school. (For more information on level of school, see the discussion under "Educational Attainment.")

Comparability—School enrollment questions have been included in the census since 1840; grade attended was first asked in 1940; type of school was first asked in 1960. Before 1940, the enrollment question in various censuses referred to attendance in the preceding six months or the preceding year. In 1940, the reference was to attendance in the month preceding the census,

and in the 1950 and subsequent censuses, the question referred to attendance in the two months preceding the census date.

Until the 1910 census, there were no instructions limiting the kinds of schools in which enrollment was to be counted. Starting in 1910, the instructions indicated that attendance at "school, college, or any educational institution" was to be counted. In 1930 an instruction to include "night school" was added. In the 1940 instructions, night school, extension school, or vocational school were included only if the school was part of the regular school system. Correspondence school work of any kind was excluded. In the 1950 instructions, the term "regular school" was introduced, and it was defined as schooling which "advances a person towards an elementary or high school diploma or a college, university, or professional school degree." Vocational, trade, or business schools were excluded unless they were graded and considered part of a regular school system. On-the-job training was excluded, as was nursery school. Instruction by correspondence was excluded unless it was given by a regular school and counted towards promotion.

In 1960, the question used the term "regular school or college" and a similar, though expanded, definition of "regular" was included in the instructions, which continued to exclude nursery school. Because of the census' use of mailed questionnaires, the 1960 census was the first in which instructions were written for the respondent as well as enumerators. In the 1970 census, the questionnaire used the phrase "regular school or college" and included instructions to "count nursery school, kindergarten, and schooling which leads to an elementary school certificate, high school diploma, or college degree." Instructions in a separate document specified that to be counted as regular school, nursery school must include instruction as an important and integral phase of its program, and continued the exclusion of vocational, trade, and business schools. The 1980 census question was very similar to the 1970 question, but the separate instruction booklet did not require that nursery school include substantial instructional content in order to be counted.

The age range for which enrollment data have been obtained and published has varied over the censuses. Information on enrollment was recorded for persons of all ages in the 1930 and 1940 and 1970 through 1990; for persons under age 30, in 1950; and for persons age 5 to 34, in 1960. Most of the published enrollment figures referred to persons age 5 to 20 in the 1930 census, 5 to 24 in 1940, 5 to 29 in 1950, 5 to 34 in 1960, 3 to 34 in 1970, and 3 years old and over in 1980. This growth in the age group whose enrollment was reported reflects increased interest in the number of children in preprimary schools and in the number of older persons attending colleges and universities.

In the 1950 and subsequent censuses, college students were enumerated where they lived while attending college, whereas in earlier censuses, they generally were enumerated at their parental homes. This change should not affect the comparability of national figures on college enrollment since 1940; however, it may affect the comparability over time of enrollment figures at sub-national levels.

Type of school was first introduced in the 1960 census, where a separate question asked the enrolled persons whether they were in a "public" or "private" school. Since the 1970 census, the type of school was incorporated into the response categories for the enrollment question and the terms were changed to "public," "parochial," and "other private." In the 1980 census, "private, church related" and "private, not church related" replaced "parochial" and "other private."

Grade of enrollment was first available in the 1940 census, where it was obtained from responses to the question on highest grade of school completed. Enumerators were instructed that "for a person still in school, the last grade completed will be the grade preceding the one in which he or she was now enrolled." From 1950 to 1980, grade of enrollment was obtained from the highest grade attended in the two-part question used to measure educational attainment. (For more information, see the discussion under "Educational Attainment.") The form of the question from which level of enrollment was derived in the 1990 census most closely corresponds to the question used in 1940. While data from prior censuses can be aggregated to provide levels of enrollment comparable to the 1990 census, 1990 data cannot be disaggregated to show single grade of enrollment as in previous censuses.

Data on school enrollment were also collected and published by other Federal, State, and local government agencies. Where these data were obtained from administrative records of school systems and institutions of higher learning, they were only roughly comparable with data from population censuses and household surveys because of differences in definitions and concepts, subject matter covered, time references, and enumeration methods. At the local level, the difference between the location of the institution and the residence of the student may affect the comparability of census and administrative data. Differences between the boundaries of school districts and census geographic units also may affect these comparisons.

SELF-CARE LIMITATION STATUS

The data on self-care limitation status were derived from answers to questionnaire item 19b, which was asked of a sample of persons 15 years old and over. Persons were identified as having a self-care limitation if they had a health condition that had lasted for 6 or more months and which made it difficult to take care of their own personal needs, such as dressing, bathing, or getting around inside the home.

The term "health condition" referred to both physical and mental conditions. A temporary health problem, such as a broken bone that was expected to heal normally, was not considered a health condition.

Comparability—This was the first time that a question on self-care limitation was included in the census.

SEX

The data on sex were derived from answers to questionnaire item 3, which was asked of all persons. For most cases in which sex was not reported, it was determined by the appropriate entry from the person's given name and household relationship. Otherwise, sex was imputed according to the relationship to the householder and the age and marital status of the person. For more information on imputation, see Appendix C, Accuracy of the Data.

Sex Ratio—A measure derived by dividing the total number of males by the total number of females and multiplying by 100.

Comparability—A question on the sex of individuals was asked of the total population in every census.

VETERAN STATUS

Data on veteran status, period of military service, and years of military service were derived from answers to questionnaire item 17, which was asked of a sample of persons.

Veteran Status—The data on veteran status were derived from responses to question 17a. For census data products, a "civilian veteran" is a person 16 years old or over who had served (even for a short time) but is not now serving on active duty in the U.S. Army, Navy, Air Force, Marine Corps, or the Coast Guard, or who served as a Merchant Marine seaman during World War II. Persons who served in the National Guard or military Reserves are classified as veterans only if they were ever called or ordered to active duty not counting the 4-6 months for initial training or yearly summer camps. All other civilians 16 years old and over are classified as nonveterans.

Period of Military Service—Persons who indicated in question 17a that they had served on active duty (civilian veterans) or were now on active duty were asked to indicate in question 17b the period or periods in which they served. Persons serving in at least one wartime period are classified in their most recent wartime period. For example, persons who served both during the Korean conflict and the post-Korean peacetime era between February 1955 and July 1964 are classified in one of the two "Korean conflict" categories. If the same person had also served during the Vietnam era, he or she would instead be included in the "Vietnam era and Korean conflict" category. The responses were edited to eliminate inconsistencies between reported period(s) of service and the age of the person and to cancel out reported combinations of periods containing unreasonable gaps (for example, a person could not serve during World War I and the Korean conflict without serving during World War II). Note that the period of service categories shown in this report are mutually exclusive.

Years of Military Service—Persons who indicated in question 17a that they had served on active duty (civilian veterans) or were now on active duty were asked to report the total number of years of active-duty service in question 17c. The data were edited for consistency with responses to question 17b (Period of Military Service) and with the age of the person.

Limitation of the Data—There may be a tendency for the following kinds of persons to report erroneously that they served on active duty in the Armed Forces: (a) persons who served in the National Guard or military Reserves but were never called to active duty; (b) civilian employees or volunteers for the USO, Red Cross, or the Department of Defense (or its predecessor Departments, War and Navy); and (c) employees of the Merchant Marine or Public Health Service. There may also be a tendency for persons to erroneously round up months to the nearest year in question 17c (for example, persons with 1 year 8 months of active duty military service may mistakenly report "2 years").

Comparability—Since census data on veterans were based on self-reported responses, they may differ from data from other sources such as administrative records of the Department of Defense. Census data may also differ from Veterans Administration data on the benefits-eligible population, since factors determining eligibility for veterans benefits differ from the rules for classifying veterans in the census.

The wording of the question on veteran status (17a) for 1990 was expanded from the veteran/not veteran question in 1980 to include questions on current active duty status and service in the military Reserves and the National Guard. The expansion was intended to clarify the appropriate response for persons in the Armed Forces and for persons who served in the National Guard or military Reserve units only. For the first time in a census, service during World War II as a Merchant Marine Seaman was considered active-duty military service and persons with such service were counted as veterans. An additional period of military service, "September 1980 or later" was added in 1990. As in 1970

and 1980, persons reporting more than one period of service are shown in the most recent wartime period of service category. Question 17c (Years of Military Service) was new for 1990.

WORK DISABILITY STATUS

The data on work disability were derived from answers to questionnaire item 18, which was asked of a sample of persons 15 years old and over. Persons were identified as having a work disability if they had a health condition that had lasted for 6 or more months and which limited the kind or amount of work they could do at a job or business. A person was limited in the kind of work he or she could do if the person had a health condition which restricted his or her choice of jobs. A person was limited in the amount of work if he or she was not able to work full-time. Persons with a work disability were further classified as "Prevented from working" or "Not prevented from working."

The term "health condition" referred to both physical and mental conditions. A temporary health problem, such as a broken bone that was expected to heal normally, was not considered a health condition.

Comparability—The wording of the question on work disability was the same in 1990 as in 1980. Information on work disability was first collected in 1970. In that census, the work disability question did not contain a clause restricting the definition of disability to limitations caused by a health condition that had lasted 6 or more months; however, it did contain a separate question about the duration of the disability.

WORK STATUS IN 1989

The data on work status in 1989 were derived from answers to questionnaire item 31, which was asked of a sample of persons. Persons 16 years old and over who worked 1 or more weeks according to the criteria described below are classified as "Worked in 1989." All other persons 16 years old and over are classified as "Did not work in 1989." Some tabulations showing work status in 1989 include 15 year olds; these persons, by definition, are classified as "Did not work in 1989."

Weeks Worked in 1989

The data on weeks worked in 1989 were derived from responses to questionnaire item 31b. Question 31b (Weeks Worked in 1989) was asked of persons 16 years old and over who indicated in question 31a that they worked in 1989.

The data pertain to the number of weeks during 1989 in which a person did any work for pay or profit (including paid vacation and paid sick leave) or worked without pay on a family farm or in a family business. Weeks of active service in the Armed Forces are also included.

Usual Hours Worked Per Week Worked in 1989

The data on usual hours worked per week worked in 1989 were derived from answers to questionnaire item 31c. This question was asked of persons 16 years old and over who indicated that they worked in 1989.

The data pertain to the number of hours a person usually worked during the weeks worked in 1989. The respondent was to report the number of hours worked per week in the majority of the weeks he or she worked in 1989. If the hours worked per week varied considerably during 1989, the respondent was to report an approximate average of the hours worked per week. The statistics on usual hours worked per week in 1989 are not necessarily related to the data on actual hours worked during the census reference week (question 21b).

Persons 16 years old and over who reported that they usually worked 35 or more hours each week during the weeks they worked are classified as "Usually worked full time;" persons who reported that they usually worked 1 to 34 hours are classified as "Usually worked part time."

Year-Round Full-Time Workers—All persons 16 years old and over who usually worked 35 hours or more per week for 50 to 52 weeks in 1989.

Number of Workers in Family in 1989—The term "worker" as used for these data is defined based on the criteria for Work Status in 1989.

Limitation of the Data—It is probable that the number of persons who worked in 1989 and the number of weeks worked are understated since there was some tendency for respondents to forget intermittent or short periods of employment or to exclude weeks worked without pay. There may also be a tendency for persons not to include weeks of paid vacation among their weeks worked; one result may be that the census figures may understate the number of persons who worked "50 to 52 weeks."

Comparability—The data on weeks worked collected in the 1990 census were comparable with data from the 1980, 1970, and 1960 censuses, but may not be entirely comparable with data from the 1940 and 1950 censuses. Since the 1960 census, two separate questions have been used to obtain this information. The first identified persons with any work experience during the year and, thus, indicated those persons for whom the questions on number of weeks worked applied. In 1940 and 1950, however, the questionnaires contained only a single question on number of weeks worked.

In 1970, persons responded to the question on weeks worked by indicating one of six weeks-worked intervals. In 1980 and 1990, persons were asked to enter the specific number of weeks they worked.

YEAR OF ENTRY

The data on year of entry were derived from answers to questionnaire item 10, which was asked of a sample of persons. The question, "When did this person come to the United States to stay?" was asked of persons who indicated in the question on citizenship that they were not born in the United States. (For more information, see the discussion under "Citizenship.")

The 1990 census questions, tabulations, and census data products about citizenship and year of entry include no reference to immigration. All persons who were born and resided outside the United States before becoming residents of the United States have a date of entry. Some of these persons are U.S. citizens by birth (e.g., persons born in Puerto Rico or born abroad of American parents). To avoid any possible confusion concerning the date of entry of persons who are U.S. citizens by birth, the term, "year of entry" is used in this report instead of the term "year of immigration."

Limitation of the Data—The census questions on nativity, citizenship, and year of entry were not designed to measure the degree of permanence of residence in the United States. The phrase, "to stay" was used to obtain the year in which the person became a resident of the United States. Although the respondent was directed to indicate the year he or she entered the country "to stay," it was difficult to ensure that respondents interpreted the phrase correctly.

Comparability—A question on year of entry, (alternately called "year of immigration") was asked in each decennial census from 1890 to 1930, 1970, and 1980. In 1980, the question on year of entry included six arrival time intervals. The number of arrival intervals was expanded to ten in 1990. In 1980, the question on year of entry was asked only of the foreign-born population. In 1990, all persons who responded to the long-form questionnaire and were not born in the United States were to complete the question on year of entry.

HOUSING CHARACTERISTICS

LIVING QUARTERS

Living quarters are classified as either housing units or group quarters. (For more information, see the discussion of "Group Quarters" under Population Characteristics.) Usually, living quarters are in structures intended for residential use (for example, a one-family home, apartment house, hotel or motel, boarding house, or mobile home). Living quarters also may be in structures intended for nonresidential use (for example, the rooms in a warehouse where a guard lives), as well as in places such as tents, vans, shelters for the homeless, dormitories, barracks, and old railroad cars.

Housing Units—A housing unit is a house, an apartment, a mobile home or trailer, a group of rooms or a single room occupied as separate living quarters or, if vacant, intended for occupancy as separate living quarters. Separate living quarters are those in which the occupants live and eat separately from any other persons in the building and which have direct access from outside the building or through a common hall.

The occupants may be a single family, one person living alone, two or more families living together, or any other group of related or unrelated persons who share living arrangements. For vacant units, the criteria of separateness and direct access are applied to the intended occupants whenever possible. If that information cannot be obtained, the criteria are applied to the previous occupants.

Both occupied and vacant housing units are included in the housing unit inventory, except that recreational vehicles, boats, vans, tents, railroad cars, and the like are included only if they are occupied as someone's usual place of residence. Vacant mobile homes are included provided they are intended for occupancy on the site where they stand. Vacant mobile homes on dealers' sales lots, at the factory, or in storage yards are excluded from the housing inventory.

If the living quarters contains nine or more persons unrelated to the householder or person in charge (a total of at least 10 unrelated persons), it is classified as group quarters. If the living quarters contains eight or fewer persons unrelated to the householder or person in charge, it is classified as a housing unit.

Occupied Housing Units—A housing unit is classified as occupied if it is the usual place of residence of the person or group of persons living in it at the time of enumeration, or if the occupants are only temporarily absent; that is, away on vacation or business. If all the persons staying in the unit at the time of the census have their usual place of residence elsewhere, the unit is classified as vacant. A household includes all the persons who occupy a housing unit as their usual place of residence. By definition, the count of occupied housing units for 100-percent tabulations is the same as the count of households or householders. In sample tabulations, the counts of household and occupied housing units may vary slightly because of different sample weighting methods.

Vacant Housing Units—A housing unit is vacant if no one is living in it at the time of enumeration, unless its occupants are only temporarily absent. Units temporarily occupied at the time of enumeration entirely by persons who have a usual residence elsewhere also are classified as vacant. (For more information, see discussion under "Usual Home Elsewhere.")

New units not yet occupied are classified as vacant housing units if construction has reached a point where all exterior windows and doors are installed and final

usable floors are in place. Vacant units are excluded if they are open to the elements; that is, the roof, walls, windows, and/or doors no longer protect the interior from the elements, or if there is positive evidence (such as a sign on the house or in the block) that the unit is condemned or is to be demolished. Also excluded are quarters being used entirely for nonresidential purposes, such as a store or an office, or quarters used for the storage of business supplies or inventory, machinery, or agricultural products.

Hotels, Motels, Rooming Houses, Etc.—Occupied rooms or suites of rooms in hotels, motels, and similar places are classified as housing units only when occupied by permanent residents; that is, persons who consider the hotel as their usual place of residence or have no usual place of residence elsewhere. Vacant rooms or suites of rooms are classified as housing units only in those hotels, motels, and similar places in which 75 percent or more of the accommodations are occupied by permanent residents.

If any of the occupants in a rooming or boarding house live and eat separately from others in the building and have direct access, their quarters are classified as separate housing units.

Staff Living Quarters—The living quarters occupied by staff personnel within any group quarters are separate housing units if they satisfy the housing unit criteria of separateness and direct access; otherwise, they are considered group quarters.

Comparability—The first Census of Housing in 1940 established the "dwelling unit" concept. Although the term became "housing unit" and the definition has been modified slightly in succeeding censuses, the 1990 definition is essentially comparable to previous censuses. There was no change in the housing unit definition between 1980 and 1990.

ACREAGE

The data on acreage were obtained from questionnaire items H5a and H19a. Question H5a was asked at all occupied and vacant one-family houses and mobile homes. Question H19a was asked on a sample basis at occupied and vacant one-family houses and mobile homes.

Question H5a asks whether the house or mobile home is located on a place of 10 or more acres. The intent of this item is to exclude owner-occupied and renter-occupied one-family houses on 10 or more acres from the specified owner- and renter-occupied universes for value and rent tabulations.

Question H19a provides data on whether the unit is located on less than 1 acre. The main purpose of this item, in conjunction with question H19b on agricultural sales, is to identify farm units. (For more information, see discussion under "Farm Residence.")

For both items, the land may consist of more than one tract or plot. These tracts or plots are usually adjoining; however, they may be separated by a road, creek, another piece of land, etc.

Comparability—Question H5a is similar to that asked in 1970 and 1980. This item was asked for the first time of mobile home occupants in 1990. Question H19a is an abbreviated form of a question asked on a sample basis in 1980. In previous censuses, information on city or suburban lot and number of acres was obtained also.

AGRICULTURAL SALES

Data on the sales of agricultural crops were obtained from questionnaire item H19b, which was asked on a sample basis at occupied one-family houses and mobile homes located on lots of 1 acre or more. Data for this item exclude units on lots of less than 1 acre, units located in structures containing 2 or more units, and all vacant units. This item refers to the total amount (before taxes and expenses) received in 1989 from the sale of crops, vegetables, fruits, nuts, livestock and livestock products, and nursery and forest products, produced on "this property." Respondents new to a unit were asked to estimate total agricultural sales in 1989 even if some portion of the sales had been made by other occupants of the unit.

This item is used mainly to classify housing units as farm or nonfarm residences, not to provide detailed information on the sale of agricultural products. Detailed information on the sale of agricultural products is provided by the Census Bureau's Census of Agriculture *(Factfinder for the Nation: Agricultural Statistics,* Bureau of the Census, 1989). (For more information, see the discussion under "Farm Residence.")

BEDROOMS

The data on bedrooms were obtained from questionnaire item H9, which was asked at both occupied and vacant housing units. This item was asked on a sample basis. The number of bedrooms is the count of rooms designed to be used as bedrooms; that is, the number of rooms that would be listed as bedrooms if the house or apartment were on the market for sale or for rent. Included are all rooms intended to be used as bedrooms even if they currently are being used for some other purpose. A housing unit consisting of only one room, such as a one-room efficiency apartment, is classified, by definition, as having no bedroom.

Comparability—Data on bedrooms have been collected in every census since 1960. In 1970 and 1980, data for bedrooms were shown only for year-round units. In past censuses, a room was defined as a bedroom if it was used mainly for sleeping even if also

used for other purposes. Rooms that were designed to be used as bedrooms but used mainly for other purposes were not considered to be bedrooms. A distribution of housing units by number of bedrooms calculated from data collected in a 1986 test showed virtually no differences in the two versions except in the two bedroom category, where the previous "use" definition showed a slightly lower proportion of units.

BOARDED-UP STATUS

Boarded-up status was obtained from questionnaire item C2 and was determined for all vacant units. Boarded-up units have windows and doors covered by wood, metal, or masonry to protect the interior and to prevent entry into the building. A single-unit structure, a unit in a multi-unit structure, or an entire multi-unit structure may be boarded-up in this way. For certain census data products, boarded-up units are shown only for units in the "Other vacant" category. A unit classified as "Usual home elsewhere" can never be boarded up. (For more information, see the discussion under "Usual Home Elsewhere.")

Comparability—This item was first asked in the 1980 census and was shown only for year-round vacant housing units. In 1990, data are shown for all vacant housing units.

BUSINESS ON PROPERTY

The data for business on property were obtained from questionnaire item H5b, which was asked at all occupied and vacant one-family houses and mobile homes. This question is used to exclude owner-occupied one-family houses with business or medical offices on the property from certain statistics on financial characteristics.

A business must be easily recognizable from the outside. It usually will have a separate outside entrance and have the appearance of a business, such as a grocery store, restaurant, or barber shop. It may be either attached to the house or mobile home or be located elsewhere on the property. Those housing units in which a room is used for business or professional purposes and have no recognizable alterations to the outside are *not* considered as having a business. Medical offices are considered/ businesses for tabulation purposes.

Comparability—Data on business on property have been collected since 1940.

CONDOMINIUM FEE

The data on condominium fee were obtained from questionnaire item H25, which was asked at owner-occupied condominiums. This item was asked on a sample basis. A condominium fee normally is charged monthly to the owners of the individual condominium units by the condominium owners association to cover operating, maintenance, administrative, and improvement costs of the common property (grounds, halls, lobby, parking areas, laundry rooms, swimming pool, etc.) The costs for utilities and/ or fuels may be included in the condominium fee if the units do not have separate meters.

Data on condominium fees may include real estate tax and/ or insurance payments for the common property, but do not include real estate taxes or fire, hazard, and flood insurance for the individual unit already reported in questions H21 and H22.

Amounts reported were the regular monthly payment, even if paid by someone outside the household or remain unpaid. Costs were estimated as closely as possible when exact costs were not known.

The data from this item were added to payments for mortgages (both first and junior mortgages and home equity loans); real estate taxes; fire, hazard, and flood insurance payments; and utilities and fuels to derive "Selected Monthly Owner Costs" and "Selected Monthly Owner Costs as a Percentage of Household Income in 1989" for condominium owners.

Comparability—This is a new item in 1990.

CONDOMINIUM STATUS

The data on condominium housing units were obtained from questionnaire item H18, which was asked on a sample basis at both occupied and vacant housing units. Condominium is a type of ownership that enables a person to own an apartment or house in a development of similarly owned units and to hold a common or joint ownership in some or all of the common areas and facilities such as land, roof, hallways, entrances, elevators, swimming pool, etc. Condominiums may be single-family houses as well as units in apartment buildings. A condominium unit need not be occupied by the owner to be counted as such. A unit classified as "mobile home or trailer" or "other" (see discussion under "Units in Structure") cannot be a condominium unit.

Limitation of the Data—Testing done prior to the 1980 and 1990 censuses indicated that the number of condominiums may be slightly overstated.

Comparability—In 1970, condominiums were grouped together with cooperative housing units, and the data were reported only for owner-occupied cooperatives and condominiums. Beginning in 1980, the census identified all condominium units and the data were shown for renter-occupied and vacant year-round condominiums as well as owner occupied. In 1970 and 1980, the question on condominiums was asked on a 100-percent basis. In 1990, it was asked on a sample basis.

CONTRACT RENT

The data on contract rent (also referred to as "rent asked" for vacant units) were obtained from questionnaire item H7a, which was asked at all occupied housing units that were rented for cash rent and all vacant housing units that were for rent at the time of enumeration.

Housing units that are renter occupied without payment of cash rent are shown separately as "No cash rent" in census data products. The unit may be owned by friends or relatives who live elsewhere and who allow occupancy without charge. Rent-free houses or apartments may be provided to compensate caretakers, ministers, tenant farmers, sharecroppers, or others.

Contract rent is the monthly rent agreed to or contracted for, regardless of any furnishings, utilities, fees, meals, or services that may be included. For vacant units, it is the monthly rent asked for the rental unit at the time of enumeration.

If the contract rent includes rent for a business unit or for living quarters occupied by another household, the respondent was instructed to report that part of the rent estimated to be for his or her unit only. Respondents were asked to report rent only for the housing unit enumerated and to exclude any rent paid for additional units or for business premises.

If a renter pays rent to the owner of a condominium or cooperative, and the condominium fee or cooperative carrying charge is also paid by the renter to the owner, the respondent was instructed to include the fee or carrying charge.

If a renter receives payments from lodgers or roomers who are listed as members of the household, the respondent was instructed to report the rent without deduction for any payments received from the lodgers or roomers. The respondent was instructed to report the rent agreed to or contracted for even if paid by someone else such as friends or relatives living elsewhere, or a church or welfare agency.

In some tabulations, contract rent is presented for all renter-occupied housing units, as well as specified renter-occupied and vacant-for-rent units. Specified renter-occupied and specified vacant-for-rent units exclude one-family houses on 10 or more acres. (For more information on rent, see the discussion under "Gross Rent.")

Median and Quartile Contract Rent—The median divides the rent distribution into two equal parts. Quartiles divide the rent distribution into four equal parts. In computing median and quartile contract rent, units reported as "No cash rent" are excluded. Median and quartile rent calculations are rounded to the nearest whole dollar. (For more information on medians and quartiles, see the discussion under "Derived Measures.")

Aggregate Contract Rent—To calculate aggregate contract rent, the amount assigned for the category "Less than $80" is $50. The amount assigned to the category "$1,000 or more" is $1,250. Mean contract rent is rounded to the nearest whole dollar. (For more information on aggregates and means, see the discussion under "Derived Measures.")

Limitation of the Data—In the 1970 and 1980 censuses, contract rent for vacant units had high allocation rates, about 35 percent.

Comparability—Data on this item have been collected since 1930. For 1990, quartiles were added because the range of rents and values in the United States has increased in recent years. Upper and lower quartiles can be used to note large rent and value differences among various geographic areas.

DURATION OF VACANCY

The data for duration of vacancy (also referred to as "months vacant") were obtained from questionnaire item D, which was completed by census enumerators. The statistics on duration of vacancy refer to the length of time (in months and years) between the date the last occupants moved from the unit and the time of enumeration. The data, therefore, do not provide a direct measure of the total length of time units remain vacant.

For newly constructed units which have never been occupied, the duration of vacancy is counted from the date construction was completed. For recently converted or merged units, the time is reported from the date conversion or merger was completed. Units occupied by an entire household with a usual home elsewhere are assigned to the "Less than 1 month" interval.

Comparability—Similar data have been collected since 1960. In 1970 and 1980, these data were shown only for year-round vacant housing units. In 1990, these data are shown for all vacant housing units.

FARM RESIDENCE

The data on farm residence were obtained from questionnaire items H19a and H19b. An occupied one-family house or mobile home is classified as a farm residence if: (1) the housing unit is located on a property of 1 acre or more, and (2) at least $1,000 worth of agricultural products were sold from the property in 1989. Group quarters and housing units that are in multi-unit buildings or vacant are not included as farm residences.

A one-family unit occupied by a tenant household paying cash rent for land and buildings is enumerated as a farm residence only if sales of agricultural products from its yard (as opposed to the general property on

which it is located) amounted to at least $1,000 in 1989. A one-family unit occupied by a tenant household that does not pay cash rent is enumerated as a farm residence if the remainder of the farm (including its yard) qualifies as a farm.

Farm residence is provided as an independent data item only for housing units located in rural areas. It may be derived for housing units in urban areas from the data items on acreage and sales of agricultural products on the public-use microdata sample (PUMS) files. (For more information on PUMS, see Appendix F, Data Products and User Assistance.)

The farm population consists of persons in households living in farm residences. Some persons who are counted on a property classified as a farm (including in some cases farm workers) are excluded from the farm population. Such persons include those who reside in multi-unit buildings or group quarters.

Comparability—These are the same criteria that were used to define a farm residence in 1980. In 1960 and 1970, a farm was defined as a place of 10 or more acres with at least $50 worth of agricultural sales or a place of less than 10 acres with at least $250 worth of agricultural sales. Earlier censuses used other definitions. Note that the definition of a farm residence differs from the definition of a farm in the Census of Agriculture (*Factfinder for the Nation: Agricultural Statistics*, Bureau of the Census, 1989).

GROSS RENT

Gross rent is the contract rent plus the estimated average monthly cost of utilities (electricity, gas, and water) and fuels (oil, coal, kerosene, wood, etc.) if these are paid for by the renter (or paid for the renter by someone else). Gross rent is intended to eliminate differentials which result from varying practices with respect to the inclusion of utilities and fuels as part of the rental payment. The estimated costs of utilities and fuels are reported on a yearly basis but are converted to monthly figures for the tabulations. Renter units occupied without payment of cash rent are shown separately as "No cash rent" in the tabulations. Gross rent is calculated on a sample basis.

Comparability—Data on gross rent have been collected since 1940 for renter-occupied housing units. In 1980, costs for electricity and gas were collected as average monthly costs. In 1990, all utility and fuel costs were collected as yearly costs and divided by 12 to provide an average monthly cost.

GROSS RENT AS A PERCENTAGE OF HOUSEHOLD INCOME IN 1989

Gross rent as a percentage of household income in 1989 is a computed ratio of monthly gross rent to monthly household income (total household income in 1989 divided by 12). The ratio was computed separately for each unit and was rounded to the nearest whole percentage. Units for which no cash rent is paid and units occupied by households that reported no income or a net loss in 1989 comprise the category "Not computed." This item is calculated on a sample basis.

HOUSE HEATING FUEL

The data on house heating fuel were obtained from questionnaire item H14, which was asked at occupied housing units. This item was asked on a sample basis. The data show the type of fuel used most to heat the house or apartment.

Utility Gas—Includes gas piped through underground pipes from a central system to serve the neighborhood.

Bottled, Tank, or LP Gas—Includes liquid propane gas stored in bottles or tanks which are refilled or exchanged when empty.

Fuel Oil, Kerosene, Etc.—Includes fuel oil, kerosene, gasoline, alcohol, and other combustible liquids.

Wood—Includes purchased wood, wood cut by household members on their property or elsewhere, driftwood, sawmill or construction scraps, or the like.

Solar Energy—Includes heat provided by sunlight which is collected, stored, and actively distributed to most of the rooms.

Other Fuel—Includes all other fuels not specified elsewhere.

No Fuel Used—Includes units that do not use any fuel or that do not have heating equipment.

Comparability—Data on house heating fuel have been collected since 1940. The category, "Solar energy" is new for 1990.

INSURANCE FOR FIRE, HAZARD, AND FLOOD

The data on fire, hazard, and flood insurance were obtained from questionnaire item H22, which was asked at a sample of owner-occupied one-family houses, condominiums, and mobile homes. The statistics for this item refer to the annual premium for fire, hazard, and flood insurance on the property (land and buildings); that is, policies that protect the property and its contents against loss due to damage by fire, lightning, winds, hail, flood, explosion, and so on.

Liability policies are included only if they are paid with the fire, hazard, and flood insurance premiums and the amounts for fire, hazard, and flood cannot be separated. Premiums are included even if paid by someone outside

the household or remain unpaid. When premiums are paid on other than a yearly basis, the premiums are converted to a yearly basis.

The payment for fire, hazard, and flood insurance is added to payments for real estate taxes, utilities, fuels, and mortgages (both first and junior mortgages and home equity loans) to derive "Selected Monthly Owner Costs" and "Selected Monthly Owner Costs as a Percentage of Household Income in 1989."

A separate question (H23d) determines whether insurance premiums are included in the mortgage payment to the lender(s). This makes it possible to avoid counting these premiums twice in the computations.

Comparability—Data on payment for fire and hazard insurance were collected for the first time in 1980. Flood insurance was not specifically mentioned in the wording of the question in 1980. The question was asked only at owner-occupied one-family houses. Excluded were mobile homes, condominiums, houses with a business or medical office on the property, houses on 10 or more acres, and housing units in multi-unit buildings. In 1990, the question was asked of all one-family owner-occupied houses, including houses on 10 or more acres. It also was asked at mobile homes, condominiums, and one-family houses with a business or medical office on the property.

KITCHEN FACILITIES

Data on kitchen facilities were obtained from questionnaire item H11, which was asked at both occupied and vacant housing units. A unit has complete kitchen facilities when it has all of the following: (1) an installed sink with piped water, (2) a range, cook top and convection or microwave oven, or cookstove, and (3) a refrigerator. All kitchen facilities must be located in the structure. They need not be in the same room. Portable cooking equipment is not considered a range or cookstove. An ice box is not considered to be a refrigerator.

Comparability—Data on complete kitchen facilities were collected for the first time in 1970. Earlier censuses collected data on individual components, such as kitchen sink and type of refrigeration equipment. In 1970 and 1980, data for kitchen facilities were shown only for year-round units. In 1990, data are shown for all housing units.

MEALS INCLUDED IN RENT

The data on meals included in the rent were obtained from questionnaire item H7b, which was asked of all occupied housing units that were rented for cash and all vacant housing units that were for rent at the time of enumeration.

The statistics on meals included in rent are presented for specified renter-occupied and specified vacant-for-rent units. Specified renter-occupied and specified vacant-for-rent units exclude one-family houses on 10 or more acres. (For more information, see the discussion under "Contract Rent.")

Comparability—This is a new item in 1990. It is intended to measure "congregate" housing, which generally is considered to be housing units where the rent includes meals and other services, such as transportation to shopping and recreation.

MOBILE HOME COSTS

The data on mobile home costs were obtained from questionnaire item H26, which was asked at owner-occupied mobile homes. This item was asked on a sample basis.

These data include the total yearly costs for personal property taxes, land or site rent, registration fees, and license fees on all owner-occupied mobile homes. The instructions are to not include real estate taxes already reported in question H21.

Costs are estimated as closely as possible when exact costs are not known. Amounts are the total for an entire 12-month billing period, even if they are paid by someone outside the household or remain unpaid.

The data from this item are added to payments for mortgages, real estate taxes, fire, hazard, and flood insurance payments, utilities, and fuels to derive selected monthly owner costs for mobile homes owners.

Comparability—This item is new for 1990.

MORTGAGE PAYMENT

The data on mortgage payment were obtained from questionnaire item H23b, which was asked at owner occupied one-family houses, condominiums, and mobile homes. This item was asked on a sample basis. Question H23b provides the regular monthly amount required to be paid the lender for the first mortgage (deed of trust, contract to purchase, or similar debt) on the property. Amounts are included even if the payments are delinquent or paid by someone else. The amounts reported are included in the computation of "Selected Monthly Owner Costs" and "Selected Monthly Owner Costs as a Percentage of Household Income in 1989" for units with a mortgage.

The amounts reported include everything paid to the lender including principal and interest payments, real estate taxes, fire, hazard, and flood insurance payments, and mortgage insurance premiums. Separate questions determine whether real estate taxes and fire, hazard, and flood insurance payments are included in

the mortgage payment to the lender. This makes it possible to avoid counting these components twice in the computation of "Selected Monthly Owner Costs."

Comparability—Information on mortgage payment was collected for the first time in 1980. It was collected only at owner-occupied one-family houses. Excluded were mobile homes, condominiums, houses with a business or medical office on the property, one-family houses on 10 or more acres, and housing units in multi-unit buildings. In 1990, the questions on monthly mortgage payments were asked of all owner-occupied one-family houses, including one-family houses on 10 or more acres. They were also asked at mobile homes, condominiums, and one-family houses with a business or medical office.

The 1980 census obtained total regular monthly mortgage payments, including payments on second or junior mortgages, from a single question. Two questions were used in 1990; one for regular monthly payments on first mortgages, and one for regular monthly payments on second or junior mortgages or home equity loans. (For more information, see the discussion under "Second or Junior Mortgage Payment.")

MORTGAGE STATUS

The data on mortgage status were obtained from questionnaire items H23a and H24a, which were asked at owner-occupied one-family houses, condominiums, and mobile homes. "Mortgage" refers to all forms of debt where the property is pledged as security for repayment of the debt. It includes such debt instruments as deeds of trust, trust deeds, contracts to purchase, land contracts, junior mortgages and home equity loans.

A mortgage is considered a first mortgage if it has prior claim over any other mortgage or if it is the only mortgage on the property. All other mortgages, (second, third, etc.) are considered junior mortgages. A home equity loan is generally a junior mortgage. If no first mortgage is reported, but a junior mortgage or home equity loan is reported, then the loan is considered a first mortgage.

In most census data products, the tabulations for "Selected Monthly Owner Costs" and "Selected Monthly Owner Costs as a Percentage of Household Income in 1989" usually are shown separately for units "with a mortgage" and for units "not mortgaged." The category "not mortgaged" is comprised of housing units owned free and clear of debt.

Comparability—A question on mortgage status was included in the 1940 and 1950 censuses, but not in the 1960 and 1970 censuses. The item was reinstated in 1980 along with a separate question dealing with the existence of second or junior mortgages. In 1980, the mortgage status questions were asked at owner-occupied one-family houses on less than 10 acres. Excluded were mobile homes, condominiums, houses with a business or medical office, houses on 10 or more acres, and housing units in multi-unit buildings. In 1990, the questions were asked of all one-family owner-occupied housing units, including houses on 10 or more acres. They were also asked at mobile homes, condominiums, and houses with a business or medical office.

PERSONS IN UNIT

This item is based on the 100-percent count of persons in occupied housing units. All persons occupying the housing unit are counted, including the householder, occupants related to the householder, and lodgers, roomers, boarders, and so forth.

The data on "persons in unit" show the number of housing units occupied by the specified number of persons. The phrase "persons in unit" is used for housing tabulations, "persons in households" for population items. Figures for "persons in unit" match those for "persons in household" for 100-percent data products. In sample products, they may differ because of the weighting process.

Median Persons in Unit—In computing median persons in unit, a whole number is used as the midpoint of an interval; thus, a unit with 4 persons is treated as an interval ranging from 3.5 to 4.5 persons. Median persons is rounded to the nearest hundredth. (For more information on medians, see the discussion under "Derived Measures.")

Persons in Occupied Housing Units—This is the total population minus those persons living in group quarters. "Persons per occupied housing unit" is computed by dividing the population living in housing units by the number of occupied housing units.

PERSONS PER ROOM

"Persons per room" is obtained by dividing the number of persons in each occupied housing unit by the number of rooms in the unit. Persons per room is rounded to the nearest hundredth. The figures shown refer, therefore, to the number of occupied housing units having the specified ratio of persons per room.

Mean Persons Per Room—This is computed by dividing persons in housing units by the aggregate number of rooms. This is intended to provide a measure of utilization. A higher mean may indicate a greater degree of utilization or crowding; a low mean may indicate underutilization. (For more information on means, see the discussion under "Derived Measures.")

PLUMBING FACILITIES

The data on plumbing facilities were obtained from questionnaire item H10, which was asked at both occupied and vacant housing units. This item was asked on a sample basis. Complete plumbing facilities include hot and cold piped water, a flush toilet, and a bathtub or shower. All three facilities must be located inside the house, apartment, or mobile home, but not necessarily in the same room. Housing units are classified as lacking complete plumbing facilities when any of the three facilities are not present.

Comparability—The 1990 data on complete plumbing facilities are not strictly comparable with the 1980 data. In 1980, complete plumbing facilities were defined as hot and cold piped water, a bathtub or shower, and a flush toilet in the housing unit for the exclusive use of the residents of that unit. In 1990, the Census Bureau dropped the requirement of exclusive use from the definition of complete plumbing facilities. Of the 2.3 million year-round housing units classified in 1980 as lacking complete plumbing for exclusive use, approximately 25 percent of these units had complete plumbing but the facilities were also used by members of another household. From 1940 to 1970, separate and more detailed questions were asked on piped water, bathing, and toilet facilities. In 1970 and 1980, the data on plumbing facilities were shown only for year-round units.

POVERTY STATUS OF HOUSEHOLDS IN 1989

The data on poverty status of households were derived from answers to the income questions. The income items were asked on a sample basis. Households are classified below the poverty level when the total 1989 income of the family or of the nonfamily householder is below the appropriate poverty threshold. The income of persons living in the household who are unrelated to the householder is not considered when determining the poverty status of a household, nor does their presence affect the household size in determining the appropriate poverty threshold. The poverty thresholds vary depending upon three criteria: size of family, number of children, and age of the family householder or unrelated individual for one and two-persons households. (For more information, see the discussion of "Poverty Status in 1989" and "Income in 1989" under Population Characteristics.)

REAL ESTATE TAXES

The data on real estate taxes were obtained from questionnaire item H21, which was asked at owner-occupied one-family houses, condominiums, and mobile homes. The statistics from this question refer to the total amount of all real estate taxes on the entire property (land and buildings) payable in 1989 to all taxing jurisdictions, including special assessments, school taxes, county taxes, and so forth.

Real estate taxes include State, local, and all other real estate taxes even if delinquent, unpaid, or paid by someone who is not a member of the household. However, taxes due from prior years are not included. If taxes are paid on other than a yearly basis, the payments are converted to a yearly basis.

The payment for real estate taxes is added to payments for fire, hazard, and flood insurance; utilities and fuels; and mortgages (both first and junior mortgages and home equity loans) to derive "Selected Monthly Owner Costs" and "Selected Monthly Owner Costs as a Percentage of Household Income in 1989." A separate question (H23c) determines whether real estate taxes are included in the mortgage payment to the lender(s). This makes it possible to avoid counting taxes twice in the computations.

Comparability—Data for real estate taxes were collected for the first time in 1980. The question was asked only at owner-occupied one-family houses. Excluded were mobile homes or trailers, condominiums, houses with a business or medical office on the property, houses on 10 or more acres, and housing units in multi-unit buildings. In 1990, the question was asked of all one-family owner-occupied houses, including houses on 10 or more acres. It also was asked at mobile homes, condominiums, and one-family houses with a business or medical office on the property.

ROOMS

The data on rooms were obtained from questionnaire item H3, which was asked at both occupied and vacant housing units. The statistics on rooms are in terms of the number of housing units with a specified number of rooms. The intent of this question is to count the number of whole rooms used for living purposes.

For each unit, rooms include living rooms, dining rooms, kitchens, bedrooms, finished recreation rooms, enclosed porches suitable for year-round use, and lodger's rooms. Excluded are strip or pullman kitchens, bathrooms, open porches, balconies, halls or foyers, half-rooms, utility rooms, unfinished attics or basements, or other unfinished space used for storage. A partially divided room is a separate room only if there is a partition from floor to ceiling, but not if the partition consists solely of shelves or cabinets.

Median Rooms—This measure divides the room distribution into two equal parts, one-half of the cases falling below the median number of rooms and one-half above the median. In computing median rooms, the whole number is used as the midpoint of the interval; thus, the category "3 rooms" is treated as an interval ranging

from 2.5 to 3.5 rooms. Median rooms is rounded to the nearest tenth. (For more information on medians, see the discussion under "Derived Measures.")

Aggregate Rooms—To calculate aggregate rooms, an arbitrary value of "10" is assigned to rooms for units falling within the terminal category, "9 or more." (For more information on aggregates and means, see the discussion under "Derived Measures.")

Comparability—Data on rooms have been collected since 1940. In 1970 and 1980, these data were shown only for year-round housing units. In 1990, these data are shown for all housing units.

SECOND OR JUNIOR MORTGAGE PAYMENT

The data on second or junior mortgage payments were obtained from questionnaire items H24a and H24b, which were asked at owner-occupied one-family houses, condominiums, and mobile homes. Question H24a asks whether a second or junior mortgage or a home equity loan exists on the property. Question H24b provides the regular monthly amount required to be paid to the lender on all second or junior mortgages and home equity loans. Amounts are included even if the payments are delinquent or paid by someone else. The amounts reported are included in the computation of "Selected Monthly Owner Costs" and "Selected Monthly Owner Costs as a Percentage of Household Income in 1989" for units with a mortgage.

All mortgages other than first mortgages are classified as "junior" mortgages. A second mortgage is a junior mortgage that gives the lender a claim against the property that is second to the claim of the holder of the first mortgage. Any other junior mortgage(s) would be subordinate to the second mortgage. A home equity loan is a line of credit available to the borrower that is secured by real estate. It may be placed on a property that already has a first or second mortgage, or it may be placed on a property that is owned free and clear.

If the respondents answered that no first mortgage existed, but a second mortgage did (as in the above case with a home equity loan), a computer edit assigned the unit a first mortgage and made the first mortgage monthly payment the amount reported in the second mortgage. The second mortgage data were then made "No" in question H24a and blank in question H24b.

Comparability—The 1980 census obtained total regular monthly mortgage payments, including payments on second or junior mortgages, from one single question. Two questions were used in 1990: one for regular monthly payments on first mortgages, and one for regular monthly payments on second or junior mortgages and home equity loans.

SELECTED MONTHLY OWNER COSTS

The data on selected monthly owner costs were obtained from questionnaire items H20 through H26 for a sample of owner-occupied one-family houses, condominiums, and mobile homes. Selected monthly owner costs is the sum of payments for mortgages, deeds of trust, contracts to purchase, or similar debts on the property (including payments for the first mortgage, second or junior mortgages, and home equity loans); real estate taxes; fire, hazard, and flood insurance on the property; utilities (electricity, gas, and water); and fuels (oil, coal, kerosene, wood, etc.). It also includes, where appropriate, the monthly condominium fee for condominiums and mobile home costs (personal property taxes, site rent, registration fees, and license fees) for mobile homes.

In certain tabulations, selected monthly owner costs are presented separately for specified owner-occupied housing units (owner-occupied one-family houses on fewer than 10 acres without a business or medical office on the property), owner-occupied condominiums, and owner-occupied mobile homes. Data usually are shown separately for units "with a mortgage" and for units "not mortgaged."

Median Selected Monthly Owner Costs—This measure is rounded to the nearest whole dollar.

Comparability—The components of selected monthly owner costs were collected for the first time in 1980. The 1990 tabulations of selected monthly owner costs for specified owner-occupied housing units are virtually identical to 1980, the primary difference was the amounts of the first and second mortgages were collected in separate questions in 1990, while the amounts were collected in a single question in 1980. The component parts of the item were tabulated for mobile homes and condominiums for the first time in 1990.

In 1980, costs for electricity and gas were collected as average monthly costs. In 1990, all utility and fuel costs were collected as yearly costs and divided by 12 to provide an average monthly cost.

SELECTED MONTHLY OWNER COSTS AS A PERCENTAGE OF HOUSEHOLD INCOME IN 1989

The information on selected monthly owner costs as a percentage of household income in 1989 is the computed ratio of selected monthly owner costs to monthly household income in 1989. The ratio was computed separately for each unit and rounded to the nearest whole percentage. The data are tabulated separately for specified owner-occupied units, condominiums, and mobile homes.

Separate distributions are often shown for units "with a mortgage" and for units "not mortgaged." Units occupied by households reporting no income or a net loss in 1989 are included in the "not computed" category. (For more information, see the discussion under "Selected Monthly Owner Costs.")

Comparability—The components of selected monthly owner costs were collected for the first time in 1980. The tabulations of "Selected Monthly Owner Costs as a Percentage of Household Income in 1989" for specified owner-occupied housing units are comparable to 1980.

SEWAGE DISPOSAL

The data on sewage disposal were obtained from questionnaire item H16, which was asked at both occupied and vacant housing units. This item was asked on a sample basis. Housing units are either connected to a public sewer, to a septic tank or cesspool, or they dispose of sewage by other means. A public sewer may be operated by a government body or by a private organization. A housing unit is considered to be connected to a septic tank or cesspool when the unit is provided with an underground pit or tank for sewage disposal. The category, "Other means" includes housing units which dispose of sewage in some other way.

Comparability—Data on sewage disposal have been collected since 1940. In 1970 and 1980, data were shown only for year-round housing units. In 1990, data are shown for all housing units.

SOURCE OF WATER

The data on source of water were obtained from questionnaire item H15, which was asked at both occupied and vacant housing units. Housing units may receive their water supply from a number of sources. A common source supplying water to five or more units is classified as a "Public system or private company." The water may be supplied by a city, county, water district, water company, etc., or it may be obtained from a well which supplies water to five or more housing units. If the water is supplied from a well serving four or fewer housing units, the units are classified as having water supplied by either an "Individual drilled well" or an "Individual dug well." Drilled wells or small diameter wells are usually less than 1-1/2 feet in diameter. Dug wells are usually larger than 1-1/2 feet wide and generally hand dug. The category, "Some other source" includes water obtained from springs, creeks, rivers, lakes, cisterns, etc.

Comparability—Data on source of water have been collected since 1940. In 1970 and 1980, data were shown only for year-round housing units. In 1990, data are shown for all housing units.

TELEPHONE IN HOUSING UNIT

The data on telephones were obtained from questionnaire item H12, which was asked at occupied housing units. This item was asked on a sample basis. A telephone must be inside the house or apartment for the unit to be classified as having a telephone. Units where the respondent uses a telephone located inside the building but not in the respondent's living quarters are classified as having no telephone.

Comparability—Data on telephones in 1980 are comparable to 1990. The 1960 and 1970 censuses collected data on telephone availability. A unit was classified as having a telephone available if there was a telephone number on which occupants of the unit could be reached. The telephone could have been in another unit, in a common hall, or outside the building.

TENURE

The data for tenure were obtained from questionnaire item H4, which was asked at all occupied housing units. All occupied housing units are classified as either owner occupied or renter occupied.

Owner Occupied—A housing unit is owner occupied if the owner or co-owner lives in the unit even if it is mortgaged or not fully paid for. The owner or co-owner must live in the unit and usually is the person listed in column 1 of the questionnaire. The unit is "Owned by you or someone in this household with a mortgage or loan" if it is being purchased with a mortgage or some other debt arrangement such as a deed of trust, trust deed, contract to purchase, land contract, or purchase agreement. The unit is also considered owned with a mortgage if it is built on leased land and there is a mortgage on the unit.

A housing unit is "Owned by you or someone in this household free and clear (without a mortgage)" if there is no mortgage or other similar debt on the house, apartment, or mobile home including units built on leased land if the unit is owned outright without a mortgage. Although owner-occupied units are divided between mortgaged and owned free and clear on the questionnaire, census data products containing 100-percent data show only total owner-occupied counts. More extensive mortgage information was collected on the long-form questionnaire and are shown in census products containing sample data. (For more information, see the discussion under "Mortgage Status.")

Renter Occupied—All occupied housing units which are not owner occupied, whether they are rented for cash rent or occupied without payment of cash rent, are classified as renter occupied. "No cash rent" units are separately identified in the rent tabulations. Such units

are generally provided free by friends or relatives or in exchange for services such as resident manager, caretaker, minister, or tenant farmer. Housing units on military bases also are classified in the "No cash rent" category. "Rented for cash rent" includes units in continuing care, sometimes called life care arrangements. These arrangements usually involve a contract between one or more individuals and a health services provider guaranteeing the individual shelter, usually a house or apartment, and services, such as meals or transportation to shopping or recreation.

Comparability—Data on tenure have been collected since 1890. In 1970, the question on tenure also included a category for condominium and cooperative ownership. In 1980, condominium units and cooperatives were dropped from the tenure item, and since 1980, only condominium units are identified in a separate question.

For 1990, the response categories were expanded to allow the respondent to report whether the unit was owned with a mortgage or free and clear (without a mortgage). The distinction between units owned with a mortgage and units owned free and clear was added in 1990 to improve the count of owner-occupied units. Research after the 1980 census indicated some respondents did not consider their units owned if they had a mortgage.

UNITS IN STRUCTURE

The data on units in structure (also referred to as "type of structure") were obtained from questionnaire item H2, which was asked at all housing units. A structure is a separate building that either has open spaces on all sides or is separated from other structures by dividing walls that extend from ground to roof. In determining the number of units in a structure, all housing units, both occupied and vacant, are counted. Stores and office space are excluded.

The statistics are presented for the number of housing units in structures of specified type and size, not for the number of residential buildings.

1-Unit, Detached—This is a 1-unit structure detached from any other house; that is, with open space on all four sides. Such structures are considered detached even if they have an adjoining shed or garage. A one-family house that contains a business is considered detached as long as the building has open space on all four sides. Mobile homes or trailers to which one or more permanent rooms have been added or built also are included.

1-Unit, Attached—This is a 1-unit structure that has one or more walls extending from ground to roof separating it from adjoining structures. In row houses (sometimes called townhouses), double houses, or houses attached to nonresidential structures, each house is a separate, attached structure if the dividing or common wall goes from ground to roof.

2 or More Units—These are units in structures containing 2 or more housing units, further categorized as units in structures with 2, 3 or 4, 5 to 9, 10 to 19, 20 to 49, and 50 or more units.

Mobile Home or Trailer—Both occupied and vacant mobile homes to which no permanent rooms have been added are counted in this category. Mobile homes or trailers used only for business purposes or for extra sleeping space and mobile homes or trailers for sale on a dealer's lot, at the factory, or in storage are not counted in the housing inventory.

Other—This category is for any living quarters occupied as a housing unit that does not fit the previous categories. Examples that fit this category are houseboats, railroad cars, campers, and vans.

Comparability—Data on units in structure have been collected since 1940 and on mobile homes and trailers since 1950. In 1970 and 1980, these data were shown only for year-round housing units. In 1990, these data are shown for all housing units. In 1980, the data were collected on a sample basis. The category, "Boat, tent, van, etc." was replaced in 1990 by the category "Other." In some areas, the proportion of units classified as "Other" is far larger than the number of units that were classified as "Boat, tent, van, etc." in 1980.

USUAL HOME ELSEWHERE

The data for usual home elsewhere are obtained from questionnaire item B, which was completed by census employees. A housing unit temporarily occupied at the time of enumeration entirely by persons with a usual residence elsewhere is classified as vacant. The occupants are classified as having a "Usual home elsewhere" and are counted at the address of their usual place of residence. Typical examples are people in a vacation home, persons renting living quarters temporarily for work, and migrant workers.

Limitation of the Data—Evidence from previous censuses suggests that in some areas enumerators marked units as "vacant—usual home elsewhere" when they should have marked "vacant—regular."

Comparability—Data for usual home elsewhere was tabulated for the first time in 1980.

UTILITIES

The data on utility costs were obtained from questionnaire items H20a through H20d, which were asked of occupied housing units. These items were asked on a sample basis.

Questions H20a through H20d asked for the yearly cost of utilities (electricity, gas, water) and other fuels (oil, coal, wood, kerosene, etc.). For the tabulations, these yearly amounts are divided by 12 to derive the average monthly cost and are then included in the computation of "Gross Rent," "Gross Rent as a Percentage of Household Income in 1989," "Selected Monthly Owner Costs," and "Selected Monthly Owner Costs as a Percentage of Household Income in 1989."

Costs are recorded if paid by or billed to occupants, a welfare agency, relatives, or friends. Costs that are paid by landlords, included in the rent payment, or included in condominium or cooperative fees are excluded.

Limitation of the Data—Research has shown that respondents tended to overstate their expenses for electricity and gas when compared to utility company records. There is some evidence that this overstatement is reduced when yearly costs are asked rather than monthly costs. Caution should be exercised in using these data for direct analysis because costs are not reported for certain kinds of units such as renter-occupied units with all utilities included in the rent and owner-occupied condominium units with utilities included in the condominium fee.

Comparability—The data on utility costs have been collected since 1980 for owner-occupied housing units, and since 1940 for renter-occupied housing units. In 1980, costs for electricity and gas were collected as average monthly costs. In 1990, all utility and fuel costs were collected as yearly costs and divided by 12 to provide an average monthly cost.

VACANCY STATUS

The data on vacancy status were obtained from questionnaire item C1, which was completed by census enumerators. Vacancy status and other characteristics of vacant units were determined by enumerators obtaining information from landlords, owners, neighbors, rental agents, and others. Vacant units are subdivided according to their housing market classification as follows:

For Rent—These are vacant units offered "for rent," and vacant units offered either "for rent" or "for sale."

For Sale Only—These are vacant units being offered "for sale only," including units in cooperatives and condominium projects if the individual units are offered "for sale only."

Rented or Sold, Not Occupied—If any money rent has been paid or agreed upon but the new renter has not moved in as of the date of enumeration, or if the unit has recently been sold but the new owner has not yet moved in, the vacant unit is classified as "rented or sold, not occupied."

For Seasonal, Recreational, or Occasional Use—These are vacant units used or intended for use only in certain seasons or for weekend or other occasional use throughout the year.

Seasonal units include those used for summer or winter sports or recreation, such as beach cottages and hunting cabins. Seasonal units also may include quarters for such workers as herders and loggers. Interval ownership units, sometimes called shared-ownership or time-sharing condominiums, also are included here.

For Migrant Workers—These include vacant units intended for occupancy by migratory workers employed in farm work during the crop season. (Work in a cannery, a freezer plant, or a food-processing plant is not farm work.)

Other Vacant—If a vacant unit does not fall into any of the classifications specified above, it is classified as "other vacant." For example, this category includes units held for occupancy by a caretaker or janitor, and units held for personal reasons of the owner.

Homeowner Vacancy Rate—This is the percentage relationship between the number of vacant units for sale and the total homeowner inventory. It is computed by dividing the number of vacant units for sale only by the sum of the owner-occupied units and the number of vacant units that are for sale only.

Rental Vacancy Rate—This is the percentage relationship of the number of vacant units for rent to the total rental inventory. It is computed by dividing the number of vacant units for rent by the sum of the renter-occupied units and the number of vacant units for rent.

Comparability—Data on vacancy status have been collected since 1940. For 1990, the category, "seasonal/ recreational/ occasional use" combined vacant units classified in 1980 as "seasonal or migratory" and "held for occasional use." Also, in 1970 and 1980, housing characteristics generally were presented only for year-round units. In 1990, housing characteristics are shown for all housing units.

VALUE

The data on value (also referred to as "price asked" for vacant units) were obtained from questionnaire item H6, which was asked at housing units that were owned, being bought, or vacant for sale at the time of enumeration. Value is the respondent's estimate of how much the property (house and lot, mobile home and lot, or condominium unit) would sell for if it were for sale. If the house or mobile home was owned or being bought, but the land on which it sits was not, the respondent was

asked to estimate the combined value of the house or mobile home and the land. For vacant units, value was the price asked for the property.

Value was tabulated separately for all owner-occupied and vacant-for-sale housing units, owner-occupied and vacant-for-sale mobile homes or trailers, and specified owner-occupied and specified vacant-for-sale housing units. Specified owner-occupied and specified vacant-for-sale housing units include only one-family houses on fewer than 10 acres without a business or medical office on the property. The data for "specified units" exclude mobile homes, houses with a business or medical office, houses on 10 or more acres, and housing units in multi-unit buildings.

Median and Quartile Value—The median divides the value distribution into two equal parts. Quartiles divide the value distribution into four equal parts. These measures are rounded to the nearest hundred dollars. (For more information on medians and quartiles, see the discussion under "Derived Measures.")

Aggregate Value—To calculate aggregate value, the amount assigned for the category "Less than $10,000" is $9,000. The amount assigned to the category "$500,000 or more" is $600,000. Mean value is rounded to the nearest hundred dollars. (For more information on aggregates and means, see the discussion under "Derived Measures.")

Comparability—In 1980, value was asked only at owner-occupied or vacant-for-sale one-family houses on fewer than 10 acres with no business or medical office on the property and at all owner-occupied or vacant-for-sale condominium housing units. Mobile homes were excluded. Value data were presented for specified owner-occupied housing units, specified vacant-for-sale-only housing units, and owner-occupied condominium housing units.

In 1990, the question was asked at all owner-occupied or vacant-for-sale-only housing units with no exclusions. Data presented for specified owner-occupied and specified vacant-for-sale-only housing units will include one-family condominium houses but not condominiums in multi-unit structures since condominium units are now identified only in long-form questionnaires.

For 1990, quartiles have been added because the range of values and rents in the United States has increased in recent years. Upper and lower quartiles can be used to note large value and rent differences among various geographic areas.

VEHICLES AVAILABLE

The data on vehicles available were obtained from questionnaire item H13, which was asked at occupied housing units. This item was asked on a sample basis. These data show the number of households with a specified number of passenger cars, vans, and pickup or panel trucks of one-ton capacity or less kept at home and available for the use of household members. Vehicles rented or leased for one month or more, company vehicles, and police and government vehicles are included if kept at home and used for nonbusiness purposes. Dismantled or immobile vehicles are excluded. Vehicles kept at home but used only for business purposes also are excluded.

Vehicles Per Household—This is computed by dividing aggregate vehicles available by the number of occupied housing units.

Limitation of the Data—The 1980 census evaluations showed that the number of automobiles was slightly overreported; the number of vans and trucks slightly underreported. The statistics do not measure the number of vehicles privately owned or the number of households owning vehicles.

Comparability—Data on automobiles available were collected from 1960 to 1980. In 1980, a separate question also was asked on the number of trucks and vans. The data on automobiles and trucks and vans were presented separately and also as a combined vehicles available tabulation. The 1990 data are comparable to the 1980 vehicles available tabulations.

YEAR HOUSEHOLDER MOVED INTO UNIT

The data on year householder moved into unit were obtained from questionnaire item H8, which was asked at occupied housing units. This item was asked on a sample basis. These data refer to the year of the latest move by the householder. If a householder moved back into a housing unit he or she previously occupied, the year of the latest move was reported. If the householder moved from one apartment to another within the same building, the year the householder moved into the present apartment was reported. The intent is to establish the year the present occupancy by the householder began. The year that the householder moved in is not necessarily the same year other members of the household moved, although in the great majority of cases an entire household moves at the same time.

Comparability—In 1960 and 1970, this question was asked of every person and included in population reports. This item in housing tabulations refers to the year the householder moved in. In 1980 and 1990, the question was asked only of the householder.

YEAR STRUCTURE BUILT

The data on year structure built were obtained from questionnaire item H17, which was asked at both occupied and vacant housing units. This item was asked on

a sample basis. Data on year structure built refer to when the building was first constructed, not when it was remodeled, added to, or converted. For housing units under construction that met the housing unit definition—that is, all exterior windows, doors, and final usable floors were in place—the category "1989 or March 1990" was used. For a houseboat or a mobile home or trailer, the manufacturer's model year was assumed to be the year built. The figures shown in census data products relate to the number of units built during the specified periods that were still in existence at the time of enumeration.

Median Year Structure Built—The median divides the distribution into two equal parts. The median is rounded to the nearest calendar year. Median age of housing can be obtained by subtracting median year structure built from 1990. For example, if the median year structure built is 1957, the median age of housing in that area is 33 years (1990 minus 1957).

Limitation of the Data—Data on year structure built are more susceptible to errors of response and nonreporting than data on many other items because respondents must rely on their memory or on estimates by persons who have lived in the neighborhood a long time. Available evidence indicates there is underreporting in the older-year-structure-built categories, especially "Built in 1939 or earlier." The introduction of the "Don't know" category (see the discussion on "Comparability") may have resulted in relatively higher allocation rates. Data users should refer to the discussion in Appendix C, Accuracy of the Data, and to the allocation tables.

Comparability—Data on year structure built were collected for the first time in the 1940 census. Since then, the response categories have been modified to accommodate the 10-year period between each census. In 1990, the category, "Don't Know," was added in an effort to minimize the response error mentioned in the paragraph above on limitation of the data.

DERIVED MEASURES

Census data products include various derived measures, such as medians, means, and percentages, as well as certain rates and ratios. Derived measures that round to less than 0.1 are not shown but indicated as zero. In printed reports, zero is indicated by a dash (–).

Interpolation

Interpolation frequently is used in calculating medians or quartiles based on interval data and in approximating standard errors from tables. Linear interpolation is used to estimate values of a function between two known values. "Pareto interpolation" is an alternative to linear interpolation. It is used by the Census Bureau in calculating median income within intervals wider than $2,500. In Pareto interpolation, the median is derived by interpolating between the logarithms of the upper and lower income limits of the median category.

Mean

This measure represents an arithmetic average of a set of values. It is derived by dividing the sum of a group of numerical items (or aggregate) by the total number of items. Aggregates are used in computing mean values. For example, mean family income is obtained by dividing the aggregate of all income reported by persons in families by the total number of families. (Additional information on means and aggregates is included in the separate explanations of many population and housing subjects.)

Median

This measure represents the middle value in a distribution. The median divides the total frequency into two equal parts: one-half of the cases fall below the median and one-half of the cases exceed the median. The median is computed on the basis of the distribution as tabulated, which is sometimes more detailed than the distribution shown in specific census publications and other data products.

In reports, if the median falls within the upper interval of the tabulation distribution, the median is shown as the initial value of the interval followed by a plus sign (+); if within the lower interval, the median is shown as the upper value of the category followed by a minus sign (–). For summary tape files, if the median falls within the upper or lower interval, it is set to a specified value. (Additional information on medians is included in the separate explanations of many population and housing subjects.)

Percentages, Rates, and Ratios

These measures are frequently presented in census products to compare two numbers or two sets of measurements. These comparisons are made in two ways: (1) subtraction, which provides an absolute measure of the difference between two items, and (2) the quotient of two numbers, which provides a relative measure of difference.

Quartile

This measure divides a distribution into four equal parts. The first quartile (or lower quartile) is the value that defines the upper limit of the lowest one-quarter of the cases. The second quartile is the median. The third quartile (or upper quartile) defines the lower limit of the

upper one-quarter of the cases in the distribution. The difference between the upper and lower quartiles is called the interquartile range. This interquartile range is less affected by wide variations than is the mean. Quartiles are presented for certain financial characteristics such as housing value and rent.

APPENDIX C.
Accuracy of the Data

CONTENTS

Confidentiality of the Data ---------- C-2
Editing of Unacceptable Data ---------- C-9
Errors in the Data ---------- C-2
Estimation Procedure ---------- C-5
Sample Design ---------- C-1

INTRODUCTION

The data contained in this data product are based on the 1990 census sample. The data are estimates of the actual figures that would have been obtained from a complete count. Estimates derived from a sample are expected to be different from the 100-percent figures because they are subject to sampling and nonsampling errors. Sampling error in data arises from the selection of persons and housing units to be included in the sample. Nonsampling error affects both sample and 100-percent data, and is introduced as a result of errors that may occur during the collection and processing phases of the census. Provided below is a detailed discussion of both types of errors and a description of the estimation procedures.

SAMPLE DESIGN

Every person and housing unit in the United States was asked certain basic demographic and housing questions (for example, race, age, marital status, housing value, or rent). A sample of these persons and housing units was asked more detailed questions about such items as income, occupation, and housing costs in addition to the basic demographic and housing information. The primary sampling unit for the 1990 census was the housing unit, including all occupants. For persons living in group quarters, the sampling unit was the person. Persons in group quarters were sampled at a 1-in-6 rate.

The sample designation method depended on the data collection procedures. Approximately 95 percent of the population was enumerated by the mailback procedure. In these areas, the Bureau of the Census either purchased a commercial mailing list, which was updated by the United States Postal Service and Census Bureau field staff, or prepared a mailing list by canvassing and listing each address in the area prior to Census Day. These lists were computerized and the appropriate units were electronically designated as sample units. The questionnaires were either mailed or hand-delivered to the addresses with instructions to complete and mail back the form.

Housing units in governmental units with a precensus (1988) estimated population of fewer than 2,500 persons were sampled at 1-in-2. Governmental units were defined for sampling purposes as all incorporated places, all counties, all county equivalents such as parishes in Louisiana, and all minor civil divisions in Connecticut, Maine, Massachusetts, Michigan, Minnesota, New Hampshire, New Jersey, New York, Pennsylvania, Rhode Island, Vermont, and Wisconsin. Housing units in census tracts and block numbering areas (BNA's) with a precensus housing unit count below 2,000 housing units were sampled at 1-in-6 for those portions not in small governmental units (governmental units with a population less than 2,500). Housing units within census tracts and BNA's with 2,000 or more housing units were sampled at 1-in-8 for those portions not in small governmental units.

In list/enumerate areas (about 5 percent of the population), each enumerator was given a blank address register with designated sample lines. Beginning about Census Day, the enumerator systematically canvassed an assigned area and listed all housing units in the address register in the order they were encountered. Completed questionnaires, including sample information for any housing unit listed on a designated sample line, were collected. For all governmental units with fewer than 2,500 persons in list/enumerate areas, a 1-in-2 sampling rate was used. All other list/enumerate areas were sampled at 1-in-6.

Housing units in American Indian reservations, tribal jurisdiction statistical areas, and Alaska Native villages were sampled according to the same criteria as other governmental units, except the sampling rates were based on the size of the American Indian and Alaska Native population in those areas as measured in the 1980 census. Trust lands were sampled at the same rate as their associated American Indian reservations. Census designated places in Hawaii were sampled at the same rate as governmental units because the Census Bureau does not recognize incorporated places in Hawaii.

The purpose of using variable sampling rates was to provide relatively more reliable estimates for small areas and decrease respondent burden in more densely populated areas while maintaining data reliability. When all sampling rates were taken into account across the

Nation, approximately one out of every six housing units in the Nation was included in the 1990 census sample.

CONFIDENTIALITY OF THE DATA

To maintain the confidentiality required by law (Title 13, United States Code), the Bureau of the Census applies a confidentiality edit to the 1990 census data to assure that published data do not disclose information about specific individuals, households, or housing units. As a result, a small amount of uncertainty is introduced into the estimates of census characteristics. The sample itself provides adequate protection for most areas for which sample data are published since the resulting data are estimates of the actual counts; however, small areas require more protection. The edit is controlled so that the basic structure of the data is preserved.

The confidentiality edit is implemented by selecting a small subset of individual households from the internal sample data files and blanking a subset of the data items on these household records. Responses to those data items were then imputed using the same imputation procedures that were used for nonresponse. A larger subset of households is selected for the confidentiality edit for small areas to provide greater protection for these areas. The editing process is implemented in such a way that the quality and usefulness of the data were preserved.

ERRORS IN THE DATA

Since statistics in this data product are based on a sample, they may differ somewhat from 100-percent figures that would have been obtained if all housing units, persons within those housing units, and persons living in group quarters had been enumerated using the same questionnaires, instructions, enumerators, etc. The sample estimate also would differ from other samples of housing units, persons within those housing units, and persons living in group quarters. The deviation of a sample estimate from the average of all possible samples is called the sampling error. The standard error of a sample estimate is a measure of the variation among the estimates from all the possible samples and thus is a measure of the precision with which an estimate from a particular sample approximates the average result of all possible samples. The sample estimate and its estimated standard error permit the construction of interval estimates with prescribed confidence that the interval includes the average result of all possible samples. Described below is the method of calculating standard errors and confidence intervals for the data in this product.

In addition to the variability which arises from the sampling procedures, both sample data and 100-percent data are subject to nonsampling error. Nonsampling error may be introduced during any of the various complex operations used to collect and process census data. For example, operations such as editing, reviewing, or handling questionnaires may introduce error into the data. A detailed discussion of the sources of nonsampling error is given in the section on "Control of Nonsampling Error" in this appendix.

Nonsampling error may affect the data in two ways. Errors that are introduced randomly will increase the variability of the data and should therefore be reflected in the standard error. Errors that tend to be consistent in one direction will make both sample and 100-percent data biased in that direction. For example, if respondents consistently tend to under-report their income, then the resulting counts of households or families by income category will tend to be understated for the higher income categories and overstated for the lower income categories. Such biases are not reflected in the standard error.

Calculation of Standard Errors

Totals and Percentages—Tables A through C in this appendix contain the information necessary to calculate the standard errors of sample estimates in this data product. To calculate the standard error, it is necessary to know the basic standard error for the characteristic (given in table A or B) that would result under a simple random sample design (of persons, households, or housing units) and estimation technique; the design factor for the particular characteristic estimated (given in table C); and the number of persons or housing units in the tabulation area and the percent of these in the sample. For machine-readable products, the percent-in-sample is included in a data matrix on the file for each tabulation area. In printed reports, the percent-in-sample is provided in data tables at the end of the statistical tables that compose the report. The design factors reflect the effects of the actual sample design and complex ratio estimation procedure used for the 1990 census. Tape purchasers will receive table C, the table of design factors, as a supplement to the technical documentation. Table C is included in this appendix for printed reports.

The steps given below should be used to calculate the standard error of an estimate of a total or a percentage contained in this product. A percentage is defined here as a ratio of a numerator to a denominator where the numerator is a subset of the denominator. For example, the proportion of Black teachers is the ratio of Black teachers to all teachers.

1. Obtain the standard error from table A or B (or use the formula given below the table) for the estimated total or percentage, respectively.

2. Find the geographic area to which the estimate applies in the appropriate percent-in-sample table or appropriate matrix, and obtain the person or housing unit "percent-in-sample" figure for this

area. Use the person "percent-in-sample" figure for person and family characteristics. Use the housing unit "percent-in-sample" figure for housing unit characteristics.

3. Use table C to obtain the design factor for the characteristic (for example, employment status, school enrollment) and the range that contains the percent- in-sample with which you are working. Multiply the basic standard error by this factor.

standard error for estimates not based on the 1990 census sample must be obtained from an appropriate source outside of this appendix.

3. For the differences between two estimates, one of which is a subclass of the other, use the tables directly where the calculated difference is the estimate of interest. For example, to determine the estimate of non-Black teachers, one may subtract the estimate of Black teachers from the estimate of total teachers. To determine the

zero. This is also the case for very large percentages or estimated totals that are close to the size of the tabulation areas to which they correspond. Nevertheless, these estimated totals and percentages still are subject to sampling and nonsampling variability, and an estimated standard error of zero (or a very small standard error) is not appropriate. For estimated percentages that are less than 2 or greater than 98, use the basic standard errors in table B that appear in the "2 or 98" row. For an estimated total that is less than 50 or within 50 of the total size of the tabulation area, use a basic standard error of 16.

An illustration of the use of the tables is given in the section entitled "Use of Tables to Compute Standard Errors."

Sums and Differences—The standard errors estimated from these tables are not directly applicable to sums of and differences between two sample estimates. To estimate the standard error of a sum or difference, the tables are to be used somewhat differently in the following three situations:

1. For the sum of or difference between a sample estimate and a 100-percent value, use the standard error of the sample estimate. The complete count value is not subject to sampling error.

2. For the sum of or difference between two sample estimates, the appropriate standard error is approximately the square root of the sum of the two individual standard errors squared; that is, for standard errors:

$$SE_{\hat{X}} \text{ and } SE_{\hat{Y}} \text{ of estimates } \hat{X} \text{ and } \hat{Y}:$$

$$SE_{(\hat{X}+\hat{Y})} = SE_{(\hat{X}-\hat{Y})} = \sqrt{(SE_{\hat{X}})^2 + (SE_{\hat{Y}})^2}$$

This method, however, will underestimate (overestimate) the standard error if the two items in a sum are highly positively (negatively) correlated or if the two items in a difference are highly negatively (positively) correlated. This method may also be used for the difference between (or sum of) sample estimates from two censuses or from a census sample and another survey. The

of two variables, where the numerator is not a subset of the denominator. For example, the ratio of teachers to students in public elementary schools. The standard error of the ratio between two sample estimates is estimated as follows:

1. If the ratio is a proportion, then follow the procedure outlined for "Totals and Percentages."

2. If the ratio is not a proportion, then approximate the standard error using the formula below.

$$SE_{(\hat{X}/\hat{Y})} = \frac{\hat{X}}{\hat{Y}} \sqrt{\frac{(SE_{\hat{X}})^2}{\hat{X}^2} + \frac{(SE_{\hat{Y}})^2}{\hat{Y}^2}}$$

Medians—For the standard error of the median of a characteristic, it is necessary to examine the distribution from which the median is derived, as the size of the base and the distribution itself affect the standard error. An approximate method is given here. As the first step, compute one-half of the number on which the median is based (refer to this result as N/2). Treat N/2 as if it were an ordinary estimate and obtain its standard error as instructed above. Compute the desired confidence interval about N/2. Starting with the lowest value of the characteristic, cumulate the frequencies in each category of the characteristic until the sum equals or first exceeds the lower limit of the confidence interval about N/2. By linear interpolation, obtain a value of the characteristic corresponding to this sum. This is the lower limit of the confidence interval of the median. In a similar manner, continue cumulating frequencies until the sum equals or exceeds the count in excess of the upper limit of the interval about N/2. Interpolate as before to obtain the upper limit of the confidence interval for the estimated median.

When interpolation is required in the upper open-ended interval of a distribution to obtain a confidence bound, use 1.5 times the lower limit of the open-ended confidence interval as the upper limit of the open-ended interval.

Confidence Intervals

A sample estimate and its estimated standard error may be used to construct confidence intervals about the estimate. These intervals are ranges that will contain

the average value of the estimated characteristic that results over all possible samples, with a known probability. For example, if all possible samples that could result under the 1990 census sample design were independently selected and surveyed under the same conditions, and if the estimate and its estimated standard error were calculated for each of these samples, then:

1. Approximately 68 percent of the intervals from one estimated standard error below the estimate to one estimated standard error above the estimate would contain the average result from all possible samples;

2. Approximately 90 percent of the intervals from 1.645 times the estimated standard error below the estimate to 1.645 times the estimated standard error above the estimate would contain the average result from all possible samples.

3. Approximately 95 percent of the intervals from two estimated standard errors below the estimate to two estimated standard errors above the estimate would contain the average result from all possible samples.

The intervals are referred to as 68 percent, 90 percent, and 95 percent confidence intervals, respectively.

The average value of the estimated characteristic that could be derived from all possible samples is or is not contained in any particular computed interval. Thus, we cannot make the statement that the average value has a certain probability of falling between the limits of the calculated confidence interval. Rather, one can say with a specified probability of confidence that the calculated confidence interval includes the average estimate from all possible samples (approximately the 100-percent value).

Confidence intervals also may be constructed for the ratio, sum of, or difference between two sample figures. This is done by first computing the ratio, sum, or difference, then obtaining the standard error of the ratio, sum, or difference (using the formulas given earlier), and finally forming a confidence interval for this estimated ratio, sum, or difference as above. One can then say with specified confidence that this interval includes the ratio, sum, or difference that would have been obtained by averaging the results from all possible samples.

The estimated standard errors given in this appendix do not include all portions of the variability due to nonsampling error that may be present in the data. The standard errors reflect the effect of simple response variance, but not the effect of correlated errors introduced by enumerators, coders, or other field or processing personnel. Thus, the standard errors calculated represent a lower bound of the total error. As a result, confidence intervals formed using these estimated standard errors may not meet the stated levels of confidence (i.e., 68, 90, or 95 percent). Thus, some care must be exercised in the interpretation of the data in this data product based on the estimated standard errors.

A standard sampling theory text should be helpful if the user needs more information about confidence intervals and nonsampling errors.

Use of Tables to Compute Standard Errors

The following is a hypothetical example of how to compute a standard error of a total and a percentage. Suppose a particular data table shows that for City A 9,948 persons out of all 15,888 persons age 16 years and over were in the civilian labor force. The percent-in-sample table lists City A with a percent-in-sample of 16.0 percent (Persons column). The column in table C which includes 16.0 percent-in-sample shows the design factor to be 1.1 for "Employment status."

The basic standard error for the estimated total 9,948 may be obtained from table A or from the formula given below table A. In order to avoid interpolation, the use of the formula will be demonstrated here. Suppose that the total population of City A was 21,220. The formula for the basic standard error, SE, is

$$SE(9{,}948) = \sqrt{5(9{,}948)\,(1-9{,}948/21{,}220)}$$

$$= 163 \text{ persons.}$$

The standard error of the estimated 9,948 persons 16 years and over who were in the civilian labor force is found by multiplying the basic standard error 163 by the design factor, 1.1 from table C. This yields an estimated standard error of 179 for the total number of persons 16 years and over in City A who were in the civilian labor force.

The estimated percent of persons 16 years and over who were in the civilian labor force in City A is 62.6. From table B, the unadjusted standard error is found to be approximately 0.85 percentage points. The standard error for the estimated 62.6 percent of persons 16 years and over who were in the civilian labor force is 0.85 x 1.1 = 0.94 percentage points.

A note of caution concerning numerical values is necessary. Standard errors of percentages derived in this manner are approximate. Calculations can be expressed to several decimal places, but to do so would indicate more precision in the data than is justifiable. Final results should contain no more than two decimal places when the estimated standard error is one percentage point (i.e., 1.00) or more.

In the previous example, the standard error of the 9,948 persons 16 years and over in City A who were in the civilian labor force was found to be 179. Thus, a 90

percent confidence interval for this estimated total is found to be:

$$[9{,}948 - 1.645(179)] \textit{ to } [9{,}948 + 1.645(179)]$$
or
9,654 to 10,242

One can say, with about 90 percent confidence, that this interval includes the value that would have been obtained by averaging the results from all possible samples.

The following is an illustration of the calculation of standard errors and confidence intervals when a difference between two sample estimates is obtained. For example, suppose the number of persons in City B age 16 years and over who were in the civilian labor force was 9,314 and the total number of persons 16 years and over was 16,666. Further suppose the population of City B was 25,225. Thus, the estimated percentage of persons 16 years and over who were in the civilian labor force is 55.9 percent. The unadjusted standard error determined using the formula provided at the bottom of table B is 0.86 percentage points. We find that City B had a percent-in-sample of 15.7. The range which includes 15.7 percent-in-sample in table C shows the design factor to be 1.1 for "Employment Status." Thus, the approximate standard error of the percentage (55.9 percent) is 0.86 x 1.1 = 0.95 percentage points.

Now suppose that one wished to obtain the standard error of the difference between City A and City B of the percentages of persons who were 16 years and over and who were in the civilian labor force. The difference in the percentages of interest for the two cities is:

$$62.6 - 55.9 = 6.7 \textit{ percent.}$$

Using the results of the previous example:

$$SE(6.7) = \sqrt{(SE(62.6))^2 + (SE(55.9))^2} = \sqrt{(0.94)^2 + (0.95)^2}$$

$$= 1.34 \text{ percentage points}$$

The 90 percent confidence interval for the difference is formed as before:

$$[6.70 - 1.645(1.34)] \textit{ to } [6.70 + 1.645(1.34)]$$
or
4.50 to 8.90

One can say with 90 percent confidence that the interval includes the difference that would have been obtained by averaging the results from all possible samples.

For reasonably large samples, ratio estimates are normally distributed, particularly for the census population. Therefore, if we can calculate the standard error of a ratio estimate then we can form a confidence interval around the ratio. Suppose that one wished to obtain the standard error of the ratio of the estimate of persons who were 16 years and over and who were in the civilian labor force in City A to the estimate of persons who were 16 years and over and who were in the civilian labor force in City B. The ratio of the two estimates of interest is:

$$9948/9314 = 1.07$$

$$SE\ (1.07) = \left(\frac{9948}{9314}\right) \sqrt{\frac{179^2}{(9948)^2} + \frac{188^2}{(9314)^2}}$$

$$= .029$$

Using the results above, the 90 percent confidence interval for this ratio would be:

$$[1.07 - 1.645(.029)] \textit{ to } [1.07 + 1.645(.029)]$$
or
1.02 to 1.12

ESTIMATION PROCEDURE

The estimates which appear in this publication were obtained from an iterative ratio estimation procedure (iterative proportional fitting) resulting in the assignment of a weight to each sample person or housing unit record. For any given tabulation area, a characteristic total was estimated by summing the weights assigned to the persons or housing units possessing the characteristic in the tabulation area. Estimates of family or household characteristics were based on the weight assigned to the family member designated as householder. Each sample person or housing unit record was assigned exactly one weight to be used to produce estimates of all characteristics. For example, if the weight given to a sample person or housing unit had the value 6, all characteristics of that person or housing unit would be tabulated with the weight of 6. The estimation procedure, however, did assign weights varying from person to person or housing unit to housing unit. The estimation procedure used to assign the weights was performed in geographically defined "weighting areas." Weighting areas generally were formed of contiguous geographic units which agreed closely with census tabulation areas within counties. Weighting areas were required to have a minimum sample of 400 persons. Weighting areas never crossed State or county boundaries. In small counties with a sample count below 400 persons, the minimum required sample condition was relaxed to permit the entire county to become a weighting area.

Within a weighting area, the ratio estimation procedure for persons was performed in four stages. For persons, the first stage applied 17 household-type groups. The second stage used two groups: sampling rate of 1-in-2; sampling rate less than 1-in-2. The third stage used the dichotomy householders/nonhouseholders. The fourth stage applied 180 aggregate age-sex-race-Hispanic origin categories. The stages were as follows:

PERSONS

STAGE I: TYPE OF HOUSEHOLD

Group	
	Persons in Housing Units With a Family With Own Children Under 18
1	2 persons in housing unit
2	3 persons in housing unit
3	4 persons in housing unit
4	5 to 7 persons in housing unit
5	8 or more persons in housing unit
	Persons in Housing Units With a Family Without Own Children Under 18
6-10	2 through 8 or more persons in housing unit
	Persons in All Other Housing Units
11	1 person in housing unit
12-16	2 through 8 or more persons in housing unit
	Persons in Group Quarters
17	Persons in Group Quarters

STAGE II: SAMPLING RATES

1	Sampling rate of 1-in-2
2	Sampling rate less than 1-in-2

STAGE III: HOUSEHOLDER/NONHOUSEHOLDER

1	Householder
2	Nonhouseholder

STAGE IV: AGE/SEX/RACE/HISPANIC ORIGIN

Group	
	White
	Persons of Hispanic Origin
	Male
1	0 to 4 years
2	5 to 14 years
3	15 to 19 years
4	20 to 24 years
5	25 to 34 years
6	35 to 54 years
7	55 to 64 years
8	65 to 74 years
9	75 years and over
	Female
10-18	Same age categories as groups 1 through 9.
	Persons Not of Hispanic Origin
19-36	Same sex and age categories as groups 1 through 18.
	Black
37-72	Same age/sex/Hispanic origin categories as groups 1 through 36.

STAGE II: SAMPLING RATES

	Asian or Pacific Islander
73-108	Same age/sex/Hispanic origin categories as groups 1 through 36.
	American Indian, Eskimo, or Aleut
109-144	Same age/sex/Hispanic origin categories as groups 1 through 36.
	Other Race (includes those races not listed above)
145-180	Same age/sex/Hispanic origin categories as groups 1 through 36.

Within a weighting area, the first step in the estimation procedure was to assign an initial weight to each sample person record. This weight was approximately equal to the inverse of the probability of selecting a person for the census sample.

The next step in the estimation procedure, prior to iterative proportional fitting, was to combine categories in each of the four estimation stages, when needed to increase the reliability of the ratio estimation procedure. For each stage, any group that did not meet certain criteria for the unweighted sample count or for the ratio of the 100-percent to the initially weighted sample count, was combined, or collapsed, with another group in the same stage according to a specified collapsing pattern. At the fourth stage, an additional criterion concerning the number of complete count persons in each race/Hispanic origin category was applied.

As the final step, the initial weights underwent four stages of ratio adjustment applying the grouping procedures described above. At the first stage, the ratio of the complete census count to the sum of the initial weights for each sample person was computed for each stage I group. The initial weight assigned to each person in a group was then multiplied by the stage I group ratio to produce an adjusted weight.

In stage II, the stage I adjusted weights were again adjusted by the ratio of the complete census count to the sum of the stage I weights for sample persons in each stage II group. Next, at stage III, the stage II weights were adjusted by the ratio of the complete census count to the sum of the stage II weights for sample persons in each stage III group. Finally, at stage IV, the stage III weights were adjusted by the ratio of the complete census count to the sum of the stage III weights for sample persons in each stage IV group. The four stages of ratio adjustment were performed two times (two iterations) in the order given above. The weights obtained from the second iteration for stage IV were assigned to the sample person records. However, to avoid complications in rounding for tabulated data, only whole number weights were assigned. For example, if the final weight of the persons in a particular group was 7.25 then 1/4 of the sample persons in this group were randomly assigned a weight of 8, while the remaining 3/4 received a weight of 7.

The ratio estimation procedure for housing units was essentially the same as that for persons, except that vacant units were treated differently. The occupied housing unit ratio estimation procedure was done in four stages, and the vacant housing unit ratio estimation procedure was done in a single stage. The first stage for occupied housing units applied 16 household type categories, while the second stage used the two sampling categories described above for persons. The third stage applied three units-in-structure categories; i.e. single units, multi-unit less than 10 and multi-unit 10 or more. The fourth stage could potentially use 200 tenure-race-Hispanic origin-value/rent groups. The stages for ratio estimation for housing units were as follows:

OCCUPIED HOUSING UNITS

STAGE I: TYPE OF HOUSEHOLD

Group	
	Housing Units With a Family With Own Children Under 18
1	2 persons in housing unit
2	3 persons in housing unit
3	4 persons in housing unit
4	5 to 7 persons in housing unit
5	8 or more persons in housing unit
	Housing Units With a Family Without Own Children Under 18
6-10	2 through 8 or more persons in housing unit
	All Other Housing Units
11	1 person in housing unit
12-16	2 through 8 or more persons in housing unit

STAGE II: SAMPLING RATE CATEGORY

1	Sampling rate of 1-in-2
2	Sampling rate less than 1-in-2

STAGE III: UNITS IN STRUCTURE

1	Single unit structure
2	Multi-unit structure consisting of fewer than 10 individual units
3	Multi-unit structure consisting of 10 or more individual units

STAGE IV: TENURE/RACE AND HISPANIC ORIGIN OF HOUSEHOLDER/VALUE OR RENT

Group	
	Owner
	White Householder
	Householder of Hispanic Origin
	Value
1	Less than $20,000
2	$20,000 to $39,999
3	$40,000 to $59,999
4	$60,000 to $79,999

STAGE IV: TENURE/RACE AND HISPANIC ORIGIN OF HOUSEHOLDER/VALUE OR RENT—Con.

5	$80,000 to $99,999
6	$100,000 to $149,999
7	$150,000 to $249,999
8	$250,000 to $299,999
9	$300,000 or more
10	Other[1]
	Householder Not of Hispanic Origin
11-20	Same value categories as groups 1 through 10
	Black Householder
21-40	Same Hispanic origin/value categories as groups 1 through 20
	Asian or Pacific Islander Householder
41-60	Same Hispanic origin/value categories as groups 1 through 20
	American Indian, Eskimo, or Aleut Householder
61-80	Same Hispanic origin/value categories as groups 1 through 20
	Householder of Other Race
81-100	Same Hispanic origin/value categories as groups 1 through 20
	Renter
	White Householder
	Householder of Hispanic origin
	Rent
101	Less than $100
102	$100 to $199
103	$200 to $299
104	$300 to $399
105	$400 to $499
106	$500 to $599
107	$600 to $749
108	$750 to $999
109	$1,000 or more
110	No cash rent
	Householder Not of Hispanic Origin
111-120	Same rent categories as groups 101 through 110
	Black Householder
121-140	Same Hispanic origin/rent categories as groups 101 through 120

[1]Value of units in this category results from other factors besides housing value alone, for example, inclusion of more than 10 acres of land, or presence of a business establishment on the premises.

STAGE IV: TENURE/RACE AND HISPANIC ORIGIN OF HOUSEHOLDER/VALUE OR RENT—Con.

	Asian or Pacific Islander Householder
141-160	Same Hispanic origin/rent categories as groups 101 through 120
	American Indian, Eskimo, or Aleut Householder
161-180	Same Hispanic origin/rent categories as groups 101 through 120
	Householder of Other Race
181-200	Same Hispanic origin/rent categories as groups 101 through 120
	Vacant Housing Units
1	Vacant for rent
2	Vacant for sale
3	Other vacant

The estimates produced by this procedure realize some of the gains in sampling efficiency that would have resulted if the population had been stratified into the ratio estimation groups before sampling, and if the sampling rate had been applied independently to each group. The net effect is a reduction in both the standard error and the possible bias of most estimated characteristics to levels below what would have resulted from simply using the initial, unadjusted weight. A by-product of this estimation procedure is that the estimates from the sample will, for the most part, be consistent with the complete count figures for the population and housing unit groups used in the estimation procedure.

Control of Nonsampling Error

As mentioned earlier, both sample and 100-percent data are subject to nonsampling error. This component of error could introduce serious bias into the data, and the total error could increase dramatically over that which would result purely from sampling. While it is impossible to completely eliminate nonsampling error [illegible]

and processing operations. Described below are the primary sources of nonsampling error and the programs instituted for control of this error. The success of these programs, however, was contingent upon how well the instructions actually were carried out during the census. As part of the 1990 census evaluation program, both the effects of these programs and the amount of error remaining after their application will be evaluated.

Undercoverage—It is possible for some households or persons to be missed entirely by the census. The undercoverage of persons and housing units can introduce biases into the data.

Several coverage improvement programs were implemented during the development of the census address list and census enumeration and processing to minimize undercoverage of the population and housing units. These programs were developed based on experience from the 1980 census and results from the 1990 census testing cycle. In developing and updating the census address list, the Census Bureau used a variety of specialized procedures in different parts of the country.

- In the large urban areas, the Census Bureau purchased and geocoded address lists. Concurrent with geocoding, the United States Postal Service (USPS) reviewed and updated this list. After the postal check, census enumerators conducted a dependent canvass and update operation. In the fall of 1989, local officials were given the opportunity to examine block counts of address listings (local review) and identify possible errors. Prior to mailout, the USPS conducted a final review.
- In small cities, suburban areas, and selected rural parts of the country, the Census Bureau created the address list through a listing operation. The USPS reviewed and updated this list, and the Census Bureau reconciled USPS corrections and updated through a field operation. In the fall of 1989, local officials participated in reviewing block counts of address listings. Prior to mailout, the USPS conducted a final review.
- The Census Bureau (rather than the USPS) conducted a listing operation in the fall of 1989 and delivered census questionnaires in selected rural and seasonal housing areas in March of 1990. In some inner-city public housing developments, whose addresses had been obtained via the purchased address list noted above, census questionnaires were also delivered by Census Bureau enumerators.

Coverage improvement programs continued during and after mailout. A recheck of units initially classified as vacant or nonexistent improved further the coverage of persons and housing units. All local officials were given the opportunity to participate in a post-census local

improve the coverage of unique population groups, such as the homeless and parolees/probationers. Computer and clerical edits and telephone and personal visit followup also contributed to improved coverage.

More extensive discussion of the programs implemented to improve coverage will be published by the Census Bureau when the evaluation of the coverage improvement program is completed.

Respondent and Enumerator Error—The person answering the questionnaire or responding to the questions posed by an enumerator could serve as a source of error, although the questions were phrased as clearly as possible based on precensus tests, and detailed instructions for completing the questionnaire were provided to each household. In addition, respondents' answers were edited for completeness and consistency, and problems were followed up as necessary.

The enumerator may misinterpret or otherwise incorrectly record information given by a respondent; may fail to collect some of the information for a person or household; or may collect data for households that were not designated as part of the sample. To control these problems, the work of enumerators was monitored carefully. Field staff were prepared for their tasks by using standardized training packages that included hands-on experience in using census materials. A sample of the households interviewed by enumerators for nonresponse were reinterviewed to control for the possibility of data for fabricated persons being submitted by enumerators. Also, the estimation procedure was designed to control for biases that would result from the collection of data

EDITING OF UNACCEPTABLE DATA

The objective of the processing operation is to produce a set of data that describes the population as accurately and clearly as possible. To meet this objective, questionnaires were edited during field data collection operations for consistency, completeness, and acceptability. Questionnaires also were reviewed by census clerks for omissions, certain specific inconsistencies, and population coverage. For example, write-in entries such as "Don't know" or "NA" were considered unacceptable. For some district offices, the initial edit was automated; however, for the majority of the district offices, it was performed by clerks. As a result of this operation, a telephone or personal visit followup was made to obtain missing information. Potential coverage errors were included in the followup, as well as a sample of questionnaires with omissions and/or inconsistencies.

Subsequent to field operations, remaining incomplete or inconsistent information on the questionnaires was assigned using imputation procedures during the final automated edit of the collected data. Imputations, or

unacceptable entries or blanks, are needed most often

the introduction of nonsampling error. The processing of the census questionnaires includes the field editing, followup, and transmittal of completed questionnaires; the manual coding of write-in responses; and the electronic data processing. The various field, coding and computer operations undergo a number of quality control checks to insure their accurate application.

Nonresponse—Nonresponse to particular questions on the census questionnaire allows for the introduction of bias into the data, since the characteristics of the nonrespondents have not been observed and may differ from those reported by respondents. As a result, any imputation procedure using respondent data may not completely reflect this difference either at the elemental level (individual person or housing unit) or on the average. Some protection against the introduction of large biases is afforded by minimizing nonresponse. In the census, nonresponse was reduced substantially during the field operations by the various edit and followup operations aimed at obtaining a response for every question. Characteristics for the nonresponses remaining after this operation were imputed by the computer by using reported data for a person or housing unit with similar characteristics.

item is inconsistent with other information for that same person or housing unit. As in previous censuses, the general procedure for changing unacceptable entries was to assign an entry for a person or housing unit that was consistent with entries for persons or housing units with similar characteristics. The assignment of acceptable codes in place of blanks or unacceptable entries enhances the usefulness of the data.

Another way in which corrections were made during the computer editing process was through substitution; that is, the assignment of a full set of characteristics for a person or housing unit. When there was an indication that a housing unit was occupied but the questionnaire contained no information for the people within the household or the occupants were not listed on the questionnaire, a previously accepted household was selected as a substitute, and the full set of characteristics for the substitute was duplicated. The assignment of the full set of housing characteristics occurred when there was no housing information available. If the housing unit was determined to be occupied, the housing characteristics were assigned from a previously processed occupied unit. If the housing unit was vacant, the housing characteristics were assigned from a previously processed vacant unit.

Table A. **Unadjusted Standard Error for Estimated Totals**

[Based on a 1-in-6 simple random sample]

Estimated Total[1]	Size of publication area[2]													
	500	1,000	2,500	5,000	10,000	25,000	50,000	100,000	250,000	500,000	1,000,000	5,000,000	10,000,000	25,000,000
50	16	16	16	16	16	16	16	16	16	16	16	16	16	16
100	20	21	22	22	22	22	22	22	22	22	22	22	22	22
250	25	30	35	35	35	35	35	35	35	35	35	35	35	35
500	-	35	45	45	50	50	50	50	50	50	50	50	50	50
1,000	-	-	55	65	65	70	70	70	70	70	70	70	70	70
2,500	-	-	-	80	95	110	110	110	110	110	110	110	110	110
5,000	-	-	-	-	110	140	150	150	160	160	160	160	160	160
10,000	-	-	-	-	-	170	200	210	220	220	220	220	220	220
15,000	-	-	-	-	-	170	230	250	270	270	270	270	270	270
25,000	-	-	-	-	-	-	250	310	340	350	350	350	350	350
75,000	-	-	-	-	-	-	-	310	510	570	590	610	610	610
100,000	-	-	-	-	-	-	-	-	550	630	670	700	700	710
250,000	-	-	-	-	-	-	-	-	-	790	970	1 090	1 100	1 100
500,000	-	-	-	-	-	-	-	-	-	-	1 120	1 500	1 540	1 570
1,000,000	-	-	-	-	-	-	-	-	-	-	-	2 000	2 120	2 190
5,000,000	-	-	-	-	-	-	-	-	-	-	-	-	3 540	4 470
10,000,000	-	-	-	-	-	-	-	-	-	-	-	-	-	5 480

[1]For estimated totals larger than 10,000,000, the standard error is somewhat larger than the table values. The formula given below should be used to calculate the standard error.

$$SE(\hat{Y}) = \sqrt{5\hat{Y}(1 - \frac{\hat{Y}}{N})}$$

N = *Size of area*

$\hat{Y}$ = *Estimate of characteristic total*

[2]The total count of persons in the area if the estimated total is a person characteristic, or the total count of housing units in the area if the estimated total is a housing unit characteristic.

Table B. **Unadjusted Standard Error in Percentage Points for Estimated Percentage**

[Based on a 1-in-6 simple random sample]

Estimated Percentage	Base of percentage[1]												
	500	750	1,000	1,500	2,500	5,000	7,500	10,000	25,000	50,000	100,000	250,000	500,000
2 or 98	1.4	1.1	1.0	0.8	0.6	0.4	0.4	0.3	0.2	0.1	0.1	0.1	0.1
5 or 95	2.2	1.8	1.5	1.3	1.0	0.7	0.6	0.5	0.3	0.2	0.2	0.1	0.1
10 or 90	3.0	2.4	2.1	1.7	1.3	0.9	0.8	0.7	0.4	0.3	0.2	0.1	0.1
15 or 85	3.6	2.9	2.5	2.1	1.6	1.1	0.9	0.8	0.5	0.4	0.3	0.2	0.1
20 or 80	4.0	3.3	2.8	2.3	1.8	1.3	1.0	0.9	0.6	0.4	0.3	0.2	0.1
25 or 75	4.3	3.5	3.1	2.5	1.9	1.4	1.1	1.0	0.6	0.4	0.3	0.2	0.1
30 or 70	4.6	3.7	3.2	2.6	2.0	1.4	1.2	1.0	0.6	0.5	0.3	0.2	0.1
35 or 65	4.8	3.9	3.4	2.8	2.1	1.5	1.2	1.1	0.7	0.5	0.3	0.2	0.2
50	5.0	4.1	3.5	2.9	2.2	1.6	1.3	1.1	0.7	0.5	0.4	0.2	0.2

[1]For a percentage and/ or base of percentage not shown in the table, the formula given below may be used to calculate the standard error. This table should only be used for proportions, that is, where the numerator is a subset of the denominator.

$$SE(\hat{p}) = \sqrt{\frac{5}{B}\hat{p}(100 - \hat{p})}$$

B = *Base of estimated percentage*

$\hat{p}$ = *Estimated percentage*

APPENDIX D.
Collection and Processing Procedures

CONTENTS

Data Collection Procedures D–2
Enumeration and Residence Rules D–1
Processing Procedures D–5

ENUMERATION AND RESIDENCE RULES

In accordance with census practice dating back to the first United States census in 1790, each person was to be enumerated as an inhabitant of his or her "usual residence" in the 1990 census. Usual residence is the place where the person lives and sleeps most of the time or considers to be his or her usual residence. This place is not necessarily the same as the person's legal residence or voting residence. In the vast majority of cases, however, the use of these different bases of classification would produce substantially the same statistics, although there might be appreciable differences for a few areas.

The implementation of this practice has resulted in the establishment of rules for certain categories of persons whose usual place of residence is not immediately apparent. Furthermore, this practice means that persons were not always counted as residents of the place where they happened to be staying on Census Day (April 1, 1990).

Enumeration Rules

Each person whose usual residence was in the United States was to be included in the census, without regard to the person's legal status or citizenship. In a departure from earlier censuses, foreign diplomatic personnel participated voluntarily in the census, regardless of their residence on or off the premises of an embassy. As in previous censuses, persons in the United States specifically excluded from the census were foreign travelers who had not established a residence.

Americans with a usual residence outside the United States were not enumerated in the 1990 census. United States military and Federal civilian employees, and their dependents overseas, are included in the population counts for States for purposes of Congressional apportionment, but are excluded from all other tabulations for States and their subdivisions. The counts of United States military and Federal civilian employees, and their dependents, were obtained from administrative records maintained by Federal departments and agencies. Other Americans living overseas, such as employees of international agencies and private businesses and students, were not enumerated, nor were their counts obtained from administrative sources. On the other hand, Americans temporarily overseas were to be enumerated at their usual residence in the United States.

Residence Rules

Each person included in the census was to be counted at his or her usual residence—the place where he or she lives and sleeps most of the time or the place where the person considers to be his or her usual home. If a person had no usual residence, the person was to be counted where he or she was staying on April 1, 1990.

Persons temporarily away from their usual residence, whether in the United States or overseas, on a vacation or on a business trip, were counted at their usual residence. Persons who occupied more than one residence during the year were counted at the one they considered to be their usual residence. Persons who moved on or near Census Day were counted at the place they considered to be their usual residence.

Persons in the Armed Forces—Members of the Armed Forces were counted as residents of the area in which the installation was located, either on the installation or in the surrounding community. Family members of Armed Forces personnel were counted where they were living on Census Day (for example, with the Armed Forces person or at another location).

Each Navy ship not deployed to the 6th or 7th Fleet was attributed to the municipality that the Department of the Navy designated as its homeport. If the homeport included more than one municipality, ships berthed there on Census Day were assigned by the Bureau of the Census to the municipality in which the land immediately adjacent to the dock or pier was actually located. Ships attributed to the homeport, but not physically present and not deployed to the 6th or 7th Fleet, were assigned to the municipality named on the Department of the Navy's homeport list. These rules also apply to Coast Guard vessels.

Personnel assigned to each Navy and Coast Guard ship were given the opportunity to report a residence off the ship. Those who did report an off-ship residence in the communities surrounding the homeport were counted there; those who did not were counted as residents of

the ship. Personnel on Navy ships deployed to the 6th or 7th Fleet on Census Day were considered to be part of the overseas population.

Persons on Maritime Ships—Persons aboard mari-

follows:

1. The port where the ship was docked on Census Day, if that port was in the United States or its territories.
2. The port of departure if the ship was at sea, provided the port was in the United States or its territories.
3. The port of destination in the United States or its territories, if the port of departure of a ship at sea was a foreign port.
4. The overseas population if the ship was docked at a foreign port or at sea between foreign ports. (These persons were not included in the overseas population for apportionment purposes.)

Persons Away at School—College students were counted as residents of the area in which they were living while attending college, as they have been since the 1950 census. Children in boarding schools below the college level were counted at their parental home.

Persons in Institutions—Persons under formally authorized, supervised care or custody, such as in Federal or State prisons; local jails; Federal detention centers; juvenile institutions; nursing, convalescent, and rest homes for the aged and dependent; or homes, schools, hospitals, or wards for the physically handicapped, mentally retarded, or mentally ill, were counted at these places.

Persons Away From Their Usual Residence on Census Day—Migrant agricultural workers who did not report a usual residence elsewhere were counted as residents of the place where they were on Census Day. Persons in worker camps who did not report a usual residence elsewhere were counted as residents of the camp where they were on Census Day.

In some parts of the country, natural disasters displaced significant numbers of households from their usual place of residence. If these persons reported a destroyed or damaged residence as their usual residence, they were counted at that location.

Persons away from their usual residence were counted by means of interviews with other members of their families, resident managers, or neighbors.

DATA COLLECTION PROCEDURES

The 1990 census was conducted primarily through self-enumeration. The questionnaire packet included general information about the 1990 census and an instruction guide explaining how to complete the questionnaire. Spanish-language questionnaires and instruction guides were available on request. Instruction guides also were available in 32 other languages.

Each housing unit in the country received one of two versions of the census questionnaire:

1. A short-form questionnaire that contained a limited number of basic population and housing questions; these questions were asked of all persons and housing units and are often referred to as 100-percent questions.
2. A long-form questionnaire that contained the 100-percent items and a number of additional questions; a sampling procedure was used to determine those housing units that were to receive the long-form questionnaire.

Three sampling rates were employed. For slightly more than one-half of the country, one in every six housing units (about 17 percent) received the long-form or sample questionnaire. In functioning local governmental units (counties and incorporated places, and in some parts of the country, towns and townships) estimated to have fewer than 2,500 inhabitants, every other housing unit (50 percent) received the sample questionnaire in order to enhance the reliability of the sample data for these small areas. For census tracts and block numbering areas having more than 2,000 housing units in the Census Bureau's address files, one in every eight housing units (about 13 percent) received a sample questionnaire, providing reliable statistics for these areas while permitting the Census Bureau to stay within a limit of 17.7 million sample questionnaires, or a one-in-six sample, nationwide.

The mail-out/mail-back procedure was used mainly in cities, suburban areas, towns, and rural areas where mailing addresses consisted of a house number and street name. In these areas, the Census Bureau developed mailing lists that included about 88.4 million addresses. The questionnaires were delivered through the mail and respondents were to return them by mail. Census questionnaires were delivered 1 week before Census Day (April 1, 1990)

The update/leave/mail-back method was used mainly in densely populated rural areas where it was difficult to develop mailing lists because mailing addresses did *not* use house number and street name. The Census Bureau compiled lists of housing units in advance of the census. Enumerators delivered the questionnaires, asked respondents to return them by mail, and added housing units not on the mailing lists. This method was used mainly in the South and Midwest, and also included some high-rise, low-income urban areas. A variation of this method

was used in urban areas having large numbers of boarded-up buildings. About 11 million housing units were enumerated using this method.

The list/enumerate method (formerly called conventional or door-to-door enumeration) was used mainly in very remote and sparsely-settled areas. The United States Postal Service delivered unaddressed short-form questionnaires before Census Day. Starting a week before Census Day, enumerators canvassed these areas, checked that all housing units received a questionnaire, created a list of all housing units, completed long-form questionnaires, and picked up the completed short-form questionnaires. This method was used mainly in the West and Northeast to enumerate an estimated 6.5 million housing units.

Followup

Nonresponse Followup—In areas where respondents were to mail back their questionnaires, an enumerator visited each address from which a questionnaire was not received.

Coverage and Edit-Failure Followup—In the mail-back areas, some households returned a questionnaire that did not meet specific quality standards because of incomplete or inconsistent information, or the respondent had indicated difficulty in deciding who was to be listed on the questionnaire. These households were contacted by telephone or by personal visit to obtain the missing information or to clarify who was to be enumerated in the household. In areas where an enumerator picked up the questionnaires, the enumerator checked the respondent-filled questionnaire for completeness and consistency.

Special Enumeration Procedures

Special procedures and questionnaires were used for the enumeration of persons in group quarters, such as college dormitories, nursing homes, prisons, military barracks, and ships. The questionnaires (Individual Census Reports, Military Census Reports, and Shipboard Census Reports) included the 100-percent population questions but did not include any housing questions. In all group quarters, all persons were asked the basic population questions; in most group quarters, additional questions were asked of a sample (one-in-six) of persons.

Shelter and Street Night (S-Night)

The Census Bureau collected data for various components of the homeless population at different stages in the 1990 census. "Shelter and Street Night" (S-Night) was a special census operation to count the population in four types of locations where homeless people are found. On the evening of March 20, 1990, and during the early morning hours of March 21, 1990, enumerators counted persons in pre-identified locations:

1. Emergency shelters for the homeless population (public and private; permanent and temporary).
2. Shelters with temporary lodging for runaway youths.
3. Shelters for abused women and their children.
4. Open locations in streets or other places not intended for habitation.

Emergency shelters include all hotels and motels costing $12 or less (excluding taxes) per night regardless of whether persons living there considered themselves to be homeless, hotels and motels (regardless of cost) used entirely to shelter homeless persons, and pre-identified rooms in hotels and motels used for homeless persons and families. Enumeration in shelters usually occurred from 6 p.m. to midnight; street enumeration, from 2 a.m. to 4 a.m.; abandoned and boarded-up buildings from 4 a.m. to 8 a.m.; and shelters for abused women, from 6 p.m. on March 20 to noon on March 21.

Other components, which some consider as part of the homeless population, were enumerated as part of regular census operations. These include persons doubled up with other families, as well as persons with no other usual home living in transient sites, such as commercial campgrounds, maternity homes for unwed mothers, and drug/alcohol abuse detoxification centers. In institutions, such as local jails and mental hospitals, the Census Bureau does not know who has a usual home elsewhere; therefore, even though some are literally homeless, these persons cannot be identified separately as a component of the homeless population.

There is no generally agreed-upon definition of "the homeless," and there are limitations in the census count that prevent obtaining a total count of the homeless population under any definition. As such, the Census Bureau does not have a definition and will not provide a total count of "the homeless." Rather, the Census Bureau will provide counts and characteristics of persons found at the time of the census in *selected* types of living arrangements. These selected components can be used as building blocks to construct a count of homeless persons appropriate to particular purposes as long as the data limitations are taken into account.

In preparation for "Shelter-and-Street-Night" enumeration, the regional census centers (RCC's) mailed a certified letter (Form D-33 (L)) to the highest elected official of each active functioning government of the United States (more than 39,000) requesting them to identify:

1. All shelters with sleeping facilities (permanent and temporary, such as church basements, armories, public buildings, and so forth, that could be open on March 20).

2. Hotels and motels used to house homeless persons and families.

3. A list of outdoor locations where homeless persons tend to be at night.

4. Places such as bus or train stations, subway stations, airports, hospital emergency rooms, and so forth, where homeless persons seek shelter at night.

5. The specific addresses of abandoned or boarded-up buildings where homeless persons were thought to stay at night.

The letter from the RCC's to the governmental units emphasized the importance of listing night-time congregating sites. The list of shelters was expanded using information from administrative records and informed local sources. The street sites were limited to the list provided by the jurisdictions. All governmental units were eligible for "Shelter and Street Night." For cities with 50,000 or more persons, the Census Bureau took additional steps to update the list of shelter and street locations if the local jurisdiction did not respond to the certified letter. Smaller cities and rural areas participated if the local jurisdiction provided the Census Bureau a list of shelters or open public places to visit or if shelters were identified through our inventory development, local knowledge update, or during the Special Place Prelist operation.

The Census Bureau encouraged persons familiar with homeless persons and the homeless themselves to apply as enumerators. This recruiting effort was particularly successful in larger cities.

For shelters, both long- and short-form Individual Census Reports (ICR's) were distributed. For street enumeration, only short-form ICR's were used. Persons in shelters and at street locations were asked the basic population questions. Additional questions about social and economic characteristics were asked of a sample of persons in shelters only.

Enumerators were instructed *not* to ask who was homeless; rather, they were told to count all persons (including children) staying overnight at the shelters, and everyone they saw on the street except the police, other persons in uniform, and persons engaged in employment or obvious money-making activities other than begging and panhandling.

At both shelter and street sites, persons found sleeping were not awakened to answer questions. Rather, the enumerator answered the sex and race questions by observation and estimated the person's age to the best of his or her ability. In shelters, administrative records and information from the shelter operator were used, when available, for persons who were already asleep.

Less than 1 percent of shelters refused to participate in the census count at first. By the end of the census period, most of those eventually cooperated and the number of refusals had been reduced to a few. For the final refusals, head counts and population characteristics were obtained by enumerators standing outside such shelters and counting people as they left in the morning.

The "street" count was restricted to persons who were visible when the enumerator came to the open, public locations that had been identified by local jurisdictions. Homeless persons who were well hidden, moving about, or in locations other than those identified by the local governments were likely missed. The number missed will never be known and there is no basis to make an estimate of the number missed from census data. The count of persons in open, public places was affected by many factors, including the extra efforts made to encourage people to go to shelters for "Shelter and Street Night," the weather (which was unusually cold in many parts of the country), the presence of the media, and distrust of the census. Expectations of the number of homeless persons on the street cannot be based on the number seen during the day because the night-time situation is normally very different as more homeless persons are in shelters or very well hidden.

For both "Shelter-and-Street-Night" locations, the Census Bureau assumed that the usual home of those enumerated was in the block where they were found (shelter or street).

The "Shelter-and-Street-Night" operation replaced and expanded the 1980 Mission Night (M-Night) and Casual Count operations. These two operations were aimed at counting the population who reported having no usual residence. M-Night was conducted a week after Census Day, in April 1980. Enumerators visited hotels, motels, and similar places costing $4 or less each night; missions, flophouses, local jails and similar places at which the average length of stay was 30 days or less; and nonshelter locations, such as bus depots, train stations, and all night movie theaters. Questions were asked of everyone, regardless of age. Enumerators conducted M-Night up to midnight on April 8, 1980, and returned the next morning to collect any forms completed after midnight.

The Casual Count operation was conducted in May 1980 at additional nonshelter locations, such as street corners, pool halls, welfare and employment offices. This operation lasted for approximately 2 weeks. Casual Count was conducted during the day only in selected large central cities. Only persons who appeared to be at least 15 years of age were asked if they had been previously enumerated. Casual Count was actually a coverage-improvement operation. It was not specifically an operation to count homeless persons living in the streets. Persons were excluded if they said they had a usual home outside the city because it was not cost effective to check through individual questionnaires in another city to try to find the person.

PROCESSING PROCEDURES

Respondents returned many census questionnaires by mail to 1 of over 344 census district offices or to one of six processing offices. In these offices, the questionnaires were "checked in" and edited for completeness and consistency of the responses. After this initial processing had been performed, all questionnaires were sent to the processing offices.

In the processing offices, the household questionnaires were microfilmed and processed by the Film Optical Sensing Device for Input to Computers (FOSDIC). For most items on the questionnaire, the information supplied by the respondent was indicated by filling circles in predesignated positions. FOSDIC electronically "read" these filled circles from the microfilm copy of the questionnaire and transferred the information to computer tape. The computer tape did not include individual names, addresses, or handwritten responses.

The data processing was performed in several stages. All questionnaires were microfilmed, "read" by FOSDIC, and transferred to computer disk. Selected written entries in the race question on both the short and long forms were keyed from the microfilm and coded using the data base developed from the 1980 census and subsequent content and operational tests. Keying of other written entries on the long forms occurred in the seven processing offices.

The information (for example, income dollar amounts or homeowner shelter costs) on these keyed files was merged with the FOSDIC data or processed further through one of three automated coding programs. The codes for industry, occupation, place-of-birth, migration, place-of-work, ancestry, language, relationship, race, and Hispanic origin were merged with the FOSDIC data for editing, weighting, and tabulating operations at Census Bureau headquarters. All responses to the questions on Individual Census Reports (ICR's), Military Census Reports (MCR's), and Shipboard Census Reports (SCR's) were keyed, not processed by microfilm or FOSDIC.

APPENDIX E.
Facsimiles of Respondent Instructions and Questionnaire Pages

Your Guide for the

1990 U.S. Census Form

This guide gives helpful information on filling out your census form. If you need more help, call the local U.S. census office. **The telephone number is on the cover of the questionnaire.** After you have filled out your form, please return it in the **envelope** we have provided.

On the inside	Page
How to fill out your census form	**2**
Example	**2**
Your answers are confidential	**2**
Instructions for the census questions	**3–11**
What the census is about	**12**
Why the census asks certain questions	**12**

CENSUS '90

U.S. DEPARTMENT OF COMMERCE
BUREAU OF THE CENSUS

D-4

How to Fill Out Your Census Form

Please use a black lead pencil only. Black lead pencil is better to use than ballpoint or other pens. Most questions ask you to fill in the circle, or to print the information. See **Example** below.

Make sure you print answers for everyone in this household. If someone in the household, such as a roomer or boarder, does not want to give you all the information for the form, print at least the person's name and answer questions 2 and 3. A census taker will call to get the other information directly from the person.

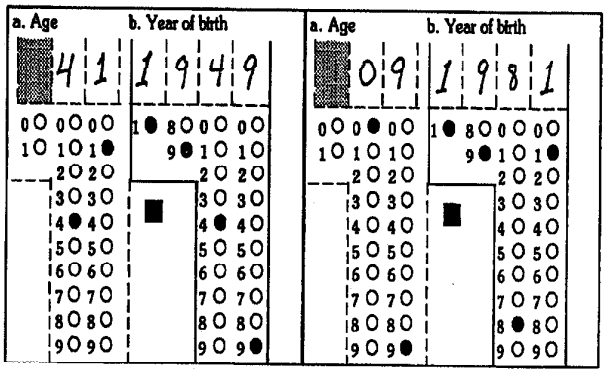
There may be a question you cannot answer exactly. For example, you might not know the age of an elderly person or the price for which your house would sell. Ask someone else in your household; if no one knows, give your best estimate.

Instructions for individual questions begin on page 3 of this guide. They will help you to understand the questions and answer them correctly.

If you have a question about filling out the census form or need assistance, call the local U.S. census office. **The telephone number is given on the cover of the questionnaire.**

If you do not mail back your census form, a census taker will be sent out to assist you. But it saves time and your taxpayer dollars if you fill out the form yourself and mail it back.

Example



Your Answers Are Confidential

The law authorizing the census (Title 13, U.S. Code) also provides that your answers are confidential. No one except census workers may see your completed form and they can be fined and/or imprisoned for any disclosure of your answers. Only after 72 years can your individual census form become available to other government agencies (whether federal, state, county, or local). Until then, no other person or business can see your individual report.

The same law that protects the confidentiality of your answers requires that you provide the information asked in this census to the best of your knowledge.

Information collected from the decennial census is used for a variety of statistical purposes. Census information is used to find out where funding is most needed for schools, health centers, highways, and other services. Census results are used by members of public and private groups--including community organizations--and by businesses and industries, as well as by agencies at all levels of government.

Instructions for Questions 1a through 7

1a. List everyone who lives at this address in question 1a. If you are not sure if you should list a person, see the rules on page 1 of the census form. If you are still not sure, answer as best you can and fill in "Yes" for question H1a or H1b, as appropriate.

If there are more than seven people in your household, please list all the persons in question 1a, complete the form for seven people, and mail it back in the enclosed envelope. A census taker will call to obtain the information for the additional persons.

b. If everyone listed in question 1a usually lives at another address(es), print the address(es) in 1b.

2. Fill one circle to show how each person is related to the person in column 1.

If **Other relative** of the person in column 1, print the exact relationship such as son-in-law, daughter-in-law, grandparent, nephew, niece, mother-in-law, father-in-law, cousin, and so on.

If the **Stepson/stepdaughter** of the person in column 1 also has been legally adopted by the person in column 1, mark **Stepson/stepdaughter** but do not mark **Natural-born or adopted son/daughter**. In other words, **Stepson/stepdaughter** takes precedence over **Adopted son/daughter.**

4. Fill ONE circle for the race each person considers himself/herself to be.

If you fill the **Indian (Amer.)** circle, print the name of the tribe or tribes in which the person is enrolled. If the person is not enrolled in a tribe, print the name of the principal tribe(s).

If you fill the **Other API** circle [under **Asian or Pacific Islander (API)**], **only** print the name of the group to which the person belongs. For example, the **Other API** category includes persons who identify as Burmese, Fijian, Hmong, Indonesian, Laotian, Bangladeshi, Pakistani, Tongan, Thai, Cambodian, Sri Lankan, and so on.

If you fill the **Other race** circle, be sure to print the name of the race.

If the person considers himself/herself to be **White, Black or Negro, Eskimo or Aleut, fill one circle only. Please do not print the race in the boxes.**

The **Black or Negro** category also includes persons who identify as African-American, Afro-American, Haitian, Jamaican, West Indian, Nigerian, and so on.

All persons, regardless of citizenship status, should answer this question.

5. Print age at last birthday in the space provided (print "00" for babies less than 1 year old). Fill in the matching circle below each box. Also, print year of birth in the space provided. Then fill in the matching circle below each box. For an illustration of how to complete question 5, see the **Example** on page 2 of this guide.

6. If the person's only marriage was annulled, mark **Never married.**

7. A person is of Spanish/Hispanic origin if the person's origin (ancestry) is Mexican, Mexican-Am., Chicano, Puerto Rican, Cuban, Argentinean, Colombian, Costa Rican, Dominican, Ecuadoran, Guatemalan, Honduran, Nicaraguan, Peruvian, Salvadoran, from other Spanish-speaking countries of the Caribbean or Central or South America, or from Spain.

If you fill the **Yes, other Spanish/Hispanic** circle, print one group.

A person who is not of Spanish/Hispanic origin should answer this question by filling the **No (not Spanish/Hispanic)** circle. Note that the term **"Mexican-Am."** refers only to persons of Mexican origin or ancestry.

All persons, regardless of citizenship status, should answer this question.

Instructions for Question H1a through H1b

H1a. Refer to the list of persons you entered in question 1a on page 1. If you left anyone out of your list because you were not sure if the person(s) should be listed, answer question H1a as **Yes.** Then enter the name(s) and reason(s) why you did not list the person(s) on the lines provided. Otherwise, answer question H1a as **No.**

b. If you included anyone on your list even though you were not sure that you should list the person(s), answer question H1b as **Yes.** Then enter the name(s) and reason(s) why you listed the person(s) on the lines provided. Otherwise, answer question H1b as **No.**

Instructions for Questions H2 through H7b

H2. Fill only one circle.

Count all occupied and vacant apartments in the house or building. Do not count stores or office space.

Detached means there is open space on all sides, or the house is joined only to a shed or garage. *Attached* means that the house is joined to another house or building by at least one wall that goes from ground to roof. An example of **A one-family house attached to one or more houses** is a house in a row of houses attached to one another.

A mobile home or trailer that has had one or more rooms added or built onto it should be counted as a *one-family detached house;* a porch or shed is not considered a room.

H3. Count only whole rooms in your house, apartment, or mobile home used for living purposes, such as living rooms, dining rooms, kitchens, bedrooms, finished recreation rooms, family rooms, etc. Do not count bathrooms, kitchenettes, strip or pullman kitchens, utility rooms, foyers, halls, half-rooms, porches, balconies, unfinished attics, unfinished basements, or other unfinished space used for storage.

H4. Housing is owned if the owner or co-owner lives in it. Mark **Owned by you or someone in this household with a mortgage or loan** if the house, apartment, or mobile home is mortgaged or there is a contract to purchase. Mark **Owned by you or someone in this household free and clear (without a mortgage)** if there is no mortgage or other debt. If the house, apartment, or mobile home is owned but the land is rented, mark this question to show the status of the house, apartment, or mobile home.

Mark **Rented for cash rent** if any money rent is paid, even if the rent is paid by persons who are not members of your household, or by a federal, state, or local government agency.

Mark **Occupied without payment of cash rent** if the unit is **not** owned or being bought by the occupants and if money rent **is not** paid or contracted. The unit may be owned by friends or relatives who live elsewhere and who allow occupancy without charge. A house or apartment may be provided as part of wages or salary. Examples are: caretaker's or janitor's house or apartment; parsonages; tenant farmer or sharecropper houses for which the occupants do not pay cash rent; or military housing.

H5a. Answer H5a and H5b if you live in a one-family house or a mobile home; include only land that you own or rent.

b. A business is easily recognized from the outside; for example, a grocery store or barber shop. A medical office is a doctor's or dentist's office regularly visited by patients.

H6. If this is a house, include the value of the house, the land it is on, and any other structures on the same property. If the house is owned but the land is rented, estimate the combined value of the house and the land. If this is a condominium unit, estimate the value for your house or apartment including your share of the common elements. If this is a mobile home, include the value of the mobile home and the value of the land. If you rent the land, estimate the value of the rented land and add it to the value of the mobile home.

H7a. Report the rent agreed to or contracted for, even if the rent for your house, apartment, or mobile home is unpaid or paid by someone else.

If rent is paid:	Multiply rent by:	If rent is paid:	Divide rent by:
By the day	30	4 times a year	3
By the week	4	2 times a year	6
Every other week	2	Once a year	12

b. Answer **Yes** if meals are included in the monthly rent payment, or you must contract for meals or a meal plan in order to live in this building.

Instructions for Questions H8 through H19b

H8. The *person listed in column 1* refers to the person listed in the first column on page 2. This person should be the household member (or one of the members) in whose name the house, apartment, or mobile home is owned, being bought, or rented. If there is no such person, any adult household member can be the person in column 1. Mark when this person last moved into this house, apartment, or mobile home.

H9. Include all rooms intended to be used as bedrooms in this house, apartment, or mobile home, even if they are currently being used for other purposes.

H10. Mark **Yes, have all three facilities** if you have all the facilities mentioned; all facilities must be in your house, apartment, or mobile home, but not necessarily in the same room. Consider that you have hot water even if you have it only part of the time. Mark **No** if any of the three facilities is not present.

H11. The kitchen sink, stove, and refrigerator must be located in the building but do not have to be in the same room. Portable cooking equipment is not considered as a range or cookstove.

H12. Answer **Yes** only if the telephone is located in your house, apartment, or mobile home.

H13. Count company cars (including police cars and taxicabs) and company trucks of one-ton capacity or less that are regularly kept at home and used by household members for nonbusiness purposes. Do **not** count cars or trucks permanently out of working order.

H14. Fill the circle for the fuel used most to heat your house, apartment, or mobile home. In buildings containing more than one apartment you may obtain this information from the owner, manager, or janitor.

Solar energy is provided by a system that collects, stores, and distributes heat from the sun. **Other fuel** includes any fuel not separately listed; for example, purchased steam, fuel briquettes, waste material, etc.

H15. If a well provides water for five or more houses, apartments, or mobile homes, mark **A public system**. If a well provides water for four or fewer houses, apartments, or mobile homes, fill one of the circles for **Individual well**.

Drilled wells, or small diameter wells, are usually less than 1½ feet in diameter. **Dug wells** are generally hand dug and are larger than 1½ feet wide.

H16. A **public sewer** may be operated by a government body or private organization. A **septic tank or cesspool** is an underground tank or pit used for disposal of sewage.

H17. Fill the circle corresponding to the period in which the original construction was completed, *not* the time of any later remodeling, additions, or conversions. In buildings containing more than one apartment, the owner, manager, or janitor may be of help in determining when the building was built.

If you live in a houseboat or a trailer or mobile home, fill the circle corresponding to the model year in which it was manufactured.

If you do not know the period when the building was first constructed, fill the circle for **Don't know**.

H18. A *condominium* is a type of ownership in which the apartments, houses, or mobile homes in a building or development are individually owned, but the common areas, such as lobbies, halls, etc., are jointly owned. Cooperative occupants should mark **No**.

H19a. Answer H19a and H19b if you live in a one-family house or mobile home.

b. *This property* is the acreage on which the house is located; it includes adjoining land you rent for your use. Report sales made in 1989 from this property by you or previous occupants.

Instructions for Questions H20 through H26

H20. If your house or apartment is rented, enter the costs for utilities and fuels **only if you pay for them in addition to the rent entered in H7a.**

If you live in a condominium, enter the costs for utilities and fuels **only if you pay for them in addition to your condominium fee.**

If your fuel and utility costs are already included in your rent or condominium fee, fill the **Included in rent or in condominium fee** circle. Do not enter any dollar amounts.

The amounts to be reported should be the total amount for the past 12 months. Estimate as closely as possible when exact costs are not known. If you have lived in this house or apartment less than 1 year, estimate the yearly cost.

Report amounts even if your bills are unpaid or paid by someone else. If the bills include utilities or fuel used also by another apartment or a business establishment, estimate the amounts for your own house or apartment. If gas and electricity are billed together, enter the combined amount on the electricity line and bracket [ ] the two utilities.

H21. Report taxes for all taxing jurisdictions (city or town, county, state, school district, etc.) even if they are included in your mortgage payment, not yet paid or paid by someone else, or are delinquent. Do not include taxes past due from previous years.

H22. When premiums are paid on other than a yearly basis, convert to a yearly basis. Enter the yearly amount even if no payment was made during the past 12 months.

H23a. The word *mortgage* is used as a general term to indicate all types of loans that are secured by real estate.

b. Enter a monthly amount even if it is unpaid or paid by someone else. If the amount is paid on some other periodic basis, see the instructions for H7a to change it to a monthly amount.

Include payments on first mortgages and contracts to purchase only. Payments for second or junior mortgages and home equity loans should be reported in H24b.

H24a. A second or junior mortgage or home equity loan is secured by real estate.

b. Enter a monthly amount even if it is unpaid or paid by someone else. If the amount is paid on some other periodic basis, see instructions for H7a and change it to a monthly amount. Include payments on all second or junior mortgages or home equity loans.

H25. A *condominium fee* is normally assessed by the condominium owners' association for the purpose of improving and maintaining the common areas. Enter a monthly amount even if it is unpaid or paid by someone else. If the amount is paid on some other periodic basis, see the instructions for H7a on how to change it to a monthly amount.

H26. Report amount even if your bills are unpaid or paid by someone else.

Include payments for personal property taxes, land or site rent, registration fees and license fees. Do not include real estate taxes already reported in H21. The amount to be reported should be the total amount for an entire 12-month billing period even if made in two or more installments. Estimate as closely as possible when exact costs are not known.

Instructions for Question 8

8. *For persons born in the United States:*

Print the name of the State in which this person was born. If the person was born in Washington, D.C., print District of Columbia. If the person was born in a U.S. territory or commonwealth, print Puerto Rico, U.S. Virgin Islands, Guam, American Samoa, or Northern Marianas.

For persons born outside the United States:

Print the name of the foreign country or area where the person was born. Use current boundaries, not boundaries at the time of the person's birth. Specify whether Northern Ireland or the Republic of Ireland (Eire); East or West Germany; North or South Korea; England, Scotland, or Wales (not Great Britain or United Kingdom). Specify the particular country or island in the Caribbean (not, for example, West Indies).

Instructions for Questions 9 through 13

9. A person should fill the **Yes, U.S. citizen by naturalization** circle only if he/she has completed the naturalization process and is now a United States citizen. If the person was born in Puerto Rico, Guam, the U.S. Virgin Islands, or Northern Marianas, he/she should fill the **Yes, born in Puerto Rico, Guam, the U.S. Virgin Islands, or Northern Marianas** circle. If the person was born outside the United States (or at sea) and has at least one American parent, he/she should fill the **Yes, born abroad of American parent or parents** circle.

10. If the person has entered the United States (that is, the 50 states and the District of Columbia) more than once, fill the circle for the latest year he/she came to stay.

11. Do not include enrollment in a trade or business school, company training, or tutoring unless the course would be accepted for credit at a regular elementary school, high school, or college.

A *public school* is any school or college that is controlled and supported primarily by a local, county, State, or Federal Government. Schools are private if supported and controlled primarily by religious organizations or other private groups.

12. Mark the category for the highest grade or level of schooling the person has **successfully completed** or the **highest degree** the person received. If the person is enrolled in school, mark the category containing the highest grade completed (the grade previous to the grade in which enrolled). Schooling completed in foreign or ungraded schools should be reported as the equivalent level of schooling in the regular American school system.

Persons who completed high school by passing an equivalency test, such as the General Educational Development (GED) examination, and did not attend college, should fill the circle for high school graduate.

Do not include vocational certificates or diplomas from vocational, trade, or business schools or colleges unless they were college level associate degrees or higher.

Some examples of *professional school degrees* include medicine, dentistry, chiropractic, optometry, osteopathic medicine, pharmacy, podiatry, veterinary medicine, law, and theology. Do not include barber school, cosmetology, or other training for a specific trade.

Do not include honorary degrees awarded by colleges and universities to individuals for their accomplishments. Include only "earned" degrees.

13. Print the ancestry group. Ancestry refers to the person's ethnic origin or descent, "roots," or heritage. Ancestry also may refer to the country of birth of the person or the person's parents or ancestors before their arrival in the United States. *All* persons, regardless of citizenship status, should answer this question.

Persons who have more than one origin and cannot identify with a single ancestry group may report two ancestry groups (for example, German-Irish).

Be specific. For example, print whether West Indian, Asian Indian, or American Indian. West Indian includes persons whose ancestors came from Jamaica, Trinidad, Haiti, etc. Distinguish Cape Verdean from Portuguese; French Canadian from Canadian; and Dominican Republic from Dominica Island.

A religious group should not be reported as a person's ancestry.

Instructions for Questions 14a through 19

14a. Mark **Yes** if this person lived in this same house or apartment on April 1, 1985, even if he/she moved away and came back since then. Mark **No** if this person lived in the same building but in a different apartment (or in the same mobile home or trailer but on a different lot or trailer site).

b. If this person lived in a different house or apartment on April 1, 1985, give the location of this person's usual home at that time.

Part (1)

If the person lived in the United States on April 1, 1985, print the name of the State (or District of Columbia) where he or she lived. Continue with parts (2) through (4).

If the person lived in a U.S. territory or commonwealth, print the name of the territory or commonwealth, such as Puerto Rico, U.S. Virgin Islands, Guam, American Samoa, or Northern Marianas. Then go to question 15a.

If the person lived outside the United States, print the name of the foreign country or area where he or she lived. Specify whether Northern Ireland or the Republic of Ireland (Eire); East or West Germany; North or South Korea; England, Scotland or Wales (not Great Britain or United Kingdom). Specify the particular country or island in the Caribbean (not, for example, West Indies). Then go to question 15a.

Part (2)

If the person lived in Louisiana, print the parish name. If the person lived in Alaska, print the borough name. If the person lived in New York city and the county name is not known, print the borough name. If the person lived in an independent city (not in any county) or in Washington, D.C., leave blank and enter the city name in part (3).

Part (3)

If the person lived in New England, print the name of the town rather than the village name, unless the name of the town is not known. If the person lived outside the limits or boundaries of any city or town, print the name of the post office or the nearest town and mark **No, lived outside the city/town limits** in part (4).

Part (4)

Mark **Yes** if the location is now inside the city/town limits even if it was not inside the limits on April 1, 1985; that is, if the area was annexed by the city/town since that time.

15. Mark **Yes** if the person sometimes or always speaks a language other than English at home.

Do not mark **Yes** for a language spoken only at school or if speaking is limited to a few expressions or slang.

Print the name of the language spoken at home. If this person speaks more than one non-English language and cannot determine which is spoken more often, report the first language the person learned to speak.

17a. For a person with service in the National Guard or a military reserve unit, fill one of the two **Yes, active duty** circles if and only if the person has ever been called up for active duty other than training; otherwise, mark **Yes, service in Reserves or National Guard only**. For a person whose only service was as a civilian employee or volunteer for the Red Cross, USO, Public Health Service, or War or Defense Department, mark **No**. Count **World War II** Merchant Marine Seaman service as active duty; do **not** count other Merchant Marine service as active duty.

18. Mark **Yes** to part (a) if a health condition substantially limits this person in his or her choice of occupation or if the condition limits the amount of work that can be accomplished in a given period of time. Mark **Yes** to part (b) if the health condition prevents this person from holding any significant employment.

19. Consider a person to have difficulty with these activities if any of the following situations apply: (1) it takes extra time or extra effort for the person to perform one or more of the activities, (2) there are times when the person cannot perform one or more of the activities, or (3) the person is completely unable to perform one or more of the activities.

Instructions for Questions 20 through 23b

20. Count all children born alive, including any who have died (even shortly after birth) or who no longer live with you. Do not include miscarriages or stillborn children or any adopted, foster, or stepchildren.

21a. *Count as work — Mark **Yes**:*

- Work for someone else for wages, salary, piece rate, commission, tips, or payments "in kind" (for example, food, lodging received as payment for work performed).
- Work in own business, professional practice, or farm.
- Any work in a family business or farm, paid or not.
- Any part-time work including babysitting, paper routes, etc.
- Active duty in Armed Forces.

*Do not count as work — Mark **No**:*

- Housework or yard work at home.
- Unpaid volunteer work.
- School work.
- Work done as a resident of an institution.

22a. Include the street type (for example, St., Road, Ave.) and the street direction (if a direction such as "North" is part of the address). For example, print 1239 N. Main St. or 1239 Main St., N.W. not just 1239 Main.

If the only known address is a post office box, give a description of the work *location*. For example, print the name of the building or shopping center where the person works, the nearest intersection, the nearest street where the workplace is located, etc. DO NOT GIVE A POST OFFICE BOX NUMBER.

If the person worked at a military installation or military base that has no street address, report the name of the military installation or base.

If the person worked at several locations, but reported to the same location each day to begin work, print the address of the location where he or she reported. If the person did not report to the same location each day to begin work, print the address of the location where he or she worked most last week.

If the person's employer operates in more than one location (such as a grocery store chain or public school system), print the exact address of the location or branch where the person worked. If the exact address of a school is not known, print the name of the school.

If the person worked on a college or university campus and the exact address of the workplace is not known, print the name of the building where he or she worked.

d. *If the person worked in New York city* and the county is not known, print the name of the borough where the person worked.

If the person worked in Louisiana, print the name of the parish where the person worked.

If the person worked in Alaska, print the name of the borough where the person worked.

e. *If the person worked in a foreign country or Puerto Rico, Guam, etc.*, print the name of the country in 22e and leave the other parts of question 22 blank.

23a. *If the person usually used more than one type of transportation to get to work* (for example, rode the bus and transferred to the subway), fill the circle of the one method of transportation that he/she used for most of the distance during the trip.

b. *If the person was driven to work by someone who then drove back home or to a nonwork destination*, fill the circle for **Drove alone**.

DO NOT include persons who rode to school or some other nonwork destination in the count of persons who rode in the vehicle.

Instructions for Questions 24a through 30

24a. Give the time of day the person usually *left home to go to work.* DO NOT give the time that the person usually began his or her work.

If the person usually left home to go to work sometime *between 12:00 o'clock midnight and 12:00 o'clock noon,* fill the **a.m.** circle.

If the person usually left home to go to work sometime *between 12:00 o'clock noon and 12:00 o'clock midnight,* fill the **p.m.** circle.

b. Travel time is from door to door. Include time taken waiting for public transportation or picking up passengers in a carpool.

25. If the person works only during certain seasons or on a day-by-day basis when work is available, mark **No.**

26a. Mark **Yes** if the person tried to get a job or to start a business or professional practice at any time in the last 4 weeks; for example, registered at an employment office, went to a job interview, placed or answered ads, or did anything toward starting a business or professional practice.

b. Mark **No, already has a job** if the person was on layoff or was expecting to report to a job within 30 days.

Mark **No, temporarily ill** if the person expects to be able to work within 30 days.

Mark **No, other reasons** if the person could not have taken a job because he or she was going to school, taking care of children, etc.

27. Look at the instructions for question 21a to see what to count as work. Mark **Never worked** if the person: (1) never worked at any kind of job or business, either full or part time, (2) never did any work, with or without pay, in a family business or farm, and (3) never served in the Armed Forces.

28a. If the person worked for a company, business, or government agency, print the name of the company, not the name of the person's supervisor. If the person worked for an individual or a business that had no company name, print the name of the individual worked for. If the person worked in his/her own business, print "self-employed."

b. Print two or more words to tell what the business, industry, or individual employer named in 28a did. If there is more than one activity, describe only the major activity at the place where the person worked. Enter what is made, what is sold, or what service is given.

Some examples of what to enter:

Enter a description like the following –	Do not enter –
Metal furniture manufacturing	Furniture company
Retail grocery store	Grocery store
Petroleum refining	Oil company
Cattle ranch	Ranch

29. Print two or more words to describe the kind of work the person did. If the person was a trainee, apprentice, or helper, include that in the description.

Some examples of what to enter:

Enter a description like the following –	Do not enter –
Production clerk	Clerk
Carpenter's helper	Helper
Auto engine mechanic	Mechanic
Registered nurse	Nurse

30. Mark **Employee of a PRIVATE NOT-FOR-PROFIT . . . organization** if the person worked for a cooperative, credit union, mutual insurance company, or similar organization.

Employees of foreign governments, the United Nations, and other international organizations should mark **PRIVATE NOT-FOR-PROFIT . . . organization**.

For persons who worked at a public school, college or university, mark the appropriate *government* category; for example, mark **State GOVERNMENT employee** for a state university, or mark **Local GOVERNMENT employee** for a county-run community college or a city-run public school.

Instructions for Questions 31a through 32h

31a. Look at the instructions for question 21a to see what to count as work.

b. Count every week in which the person did any work at all, even for an hour.

32. Fill the **Yes** or **No** circle for each part and enter the amount received during 1989.

If income from any source was received jointly by household members, report, if possible, the appropriate share for each person; otherwise, report the whole amount for only one person and fill the **No** circle for the other person.

a. Include wages and salaries from *all* jobs *before* deductions. Be sure to include any tips, commissions, or bonuses. Owners of *incorporated* businesses should enter their salary here. Military personnel should include base pay plus cash housing and/or subsistence allowance, flight pay, uniform allotments, reenlistment bonuses, etc.

b. Include *NONFARM* profit (or loss) from self-employment in sole proprietorships and partnerships. *Exclude* profit (or loss) of incorporated businesses you own.

c. Include *FARM* profit (or loss) from self-employment in sole proprietorships and partnerships. *Exclude* profit (or loss) of incorporated farm businesses you own. Also *exclude* amounts from land rented for cash but include amounts from land rented for shares.

d. Include interest received or credited to checking and savings accounts, money market funds, certificates of deposit (CDs), IRAs, KEOGHs, and government bonds.

Include dividends received, credited, or reinvested from ownership of stocks or mutual funds.

Include profit (or loss) from royalties and the rental of land, buildings or real estate, or from roomers or boarders. Income received by self-employed persons whose *primary* source of income is from renting property or from royalties should be included in questions 32b or 32c above. Include regular payments from an estate or trust fund.

e. Include Social Security (and/or Railroad Retirement) payments to retired persons, to dependents of deceased insured workers, and to disabled workers *before* Medicare deductions.

f. Include Supplemental Security Income received by aged, blind, or disabled persons, Aid to Families with Dependent Children, or income from other government programs such as general or emergency assistance. Do not include assistance received from private charities. *Exclude* assistance to pay for heating (cooling) costs.

g. Include retirement, disability, or survivor benefits received from companies and unions; Federal, State, and local governments, and the U.S. military. Include regular income from annuities and IRA or KEOGH retirement plans.

h. Include Veterans' (VA) disability compensation and educational assistance payments (VEAP), unemployment compensation, child support or alimony, and all other regular payments such as Armed Forces transfer payments; assistance from private charities; regular contributions from persons not living in the household, etc.

Do not include the following as income in any item:

- Refunds or rebates of any kind
- Withdrawals from savings of any kind
- Capital gains or losses from the sale of homes, shares of stock, etc.
- Inheritances or insurance settlements
- Any type of loan
- Pay in-kind such as food, free rent, etc.

What the Census Is About –
Some Questions and Answers

Why are we taking a census?
The most important reason for taking a decennial census is to determine how many representatives each state will have in Congress.

What does the Census Bureau do with the information you provide?
The individual information collected in the census is grouped together into statistical totals. Information such as the number of persons in a given area, their ages, educational background, the characteristics of their housing, etc., enable government, business, and industry to plan more effectively.

How long have we been taking the census?
The first census was taken in 1790 in accordance with the requirement in the first article of the constitution. A census has been taken every 10 years since. The 1990 Decennial Census marks the 200th anniversary of the census.

How are you being counted?
Census forms are delivered to all households a few days before census day. Households are requested to fill out the form and mail it back to the census office.

Why the Census Asks Certain Questions

Here are a few reasons for asking some of the questions.

It is as important to get information about people and their houses as it is to count them.

Name?
Names help make sure that everyone in a household is counted, but that no one is counted twice.

Value or rent?
Government and planning agencies use answers to these questions in combination with other information to develop housing programs to meet the needs of people at different economic levels.

Complete plumbing?
This question gives information on the quality of housing. The data are used with other statistics to show how the "level of living" compares in various areas and how it has changed over time.

Place of birth?
This question provides information used to study long-term trends as to where people move and to study migration patterns and differences in growth patterns.

Job?
Answers to the questions about the jobs people hold provide information on the extent and types of employment in different areas of the country. From this information, training programs can be developed and the need for new industries can be determined.

Income?
Income, more than anything else, determines how families or persons live. Income information makes it possible to compare the economic levels of different areas.

CENSUS '90

OFFICIAL 1990 U.S. CENSUS FORM

Thank you for taking time to complete and return this census questionnaire. It's important to you, your community, and the Nation.

The law requires answers but guarantees privacy.

By law (Title 13, U.S. Code), you're required to answer the census questions to the best of your knowledge. However, the same law guarantees that your census form remains confidential. For 72 years–or until the year 2062–only Census Bureau employees can see your form. No one else–no other government body, no police department, no court system or welfare agency–is permitted to see this confidential information under any circumstances.

How to get started–and get help.

Start by listing on the next page the names of all the people who live in your home. Please answer all questions with a black lead pencil. You'll find detailed instructions for answering the census in the enclosed guide. If you need additional help, call the toll-free telephone number to the left, near your address.

Please answer and return your form promptly.

Complete your form and return it by April 1, 1990 in the postage-paid envelope provided. Avoid the inconvenience of having a census taker visit your home.

Again, thank you for answering the 1990 Census.
Remember: Return the completed form by April 1, 1990.

Para personas de habla hispana –
(For Spanish-speaking persons)

Si usted desea un cuestionario del censo en español, llame sin cargo alguno al siguiente número: 1-800-CUENTAN
(o sea 1-800-283-6826)

U.S. Department of Commerce
BUREAU OF THE CENSUS

FORM D-2

OMB No. 0607-0628
Approval Expires 07/31/91

The 1990 census must count every person at his or her "usual residence." This means the place where the person lives and sleeps most of the time.

1a. List on the numbered lines below the name of each person living here on Sunday, April 1, including all persons staying here who have no other home. If EVERYONE at this address is staying here temporarily and usually lives somewhere else, follow the instructions given in question 1b below.

Include

- Everyone who usually lives here such as family members, housemates and roommates, foster children, roomers, boarders, and live-in employees
- Persons who are temporarily away on a business trip, on vacation, or in a general hospital
- College students who stay here while attending college
- Persons in the Armed Forces who live here
- Newborn babies still in the hospital
- Children in boarding schools below the college level
- Persons who stay here most of the week while working even if they have a home somewhere else
- Persons with no other home who are staying here on April 1

Do NOT include

- Persons who usually live somewhere else
- Persons who are away in an institution such as a prison, mental hospital, or a nursing home
- College students who live somewhere else while attending college
- Persons in the Armed Forces who live somewhere else
- Persons who stay somewhere else most of the week while working

Print last name, first name, and middle initial for each person. Begin on line 1 with the household member (or one of the household members) in whose name this house or apartment is owned, being bought, or rented. If there is no such person, start on line 1 with any adult household member.

	LAST	FIRST	INITIAL		LAST	FIRST	INITIAL
1				7			
2				8			
3				9			
4				10			
5				11			
6				12			

1b. If EVERYONE is staying here only temporarily and usually lives somewhere else, list the name of each person on the numbered lines above, fill this circle ⟶ ○ and print their usual address below. DO NOT PRINT THE ADDRESS LISTED ON THE FRONT COVER.

House number | Street or road/Rural route and box number | Apartment number

City | State | ZIP Code

County or foreign country | Names of nearest intersecting streets or roads

NOW PLEASE OPEN THE FLAP TO PAGE 2 AND ANSWER ALL QUESTIONS FOR THE FIRST 7 PEOPLE LISTED. USE A BLACK LEAD PENCIL ONLY.

PLEASE ALSO ANSWER HOUSING QUESTIONS ON PAGE 3 →

Please fill one column → for each person listed in Question 1a on page 1.	PERSON 1	PERSON 2
	Last name First name — Middle initial	Last name First name — Middle initial
2. How is this person related to PERSON 1? Fill ONE circle for each person. If **Other relative** of person in column 1, fill circle and print exact relationship, such as mother-in-law, grandparent, son-in-law, niece, cousin, and so on.	START in this column with the household member (or one of the members) in whose name the home is owned, being bought, or rented. If there is no such person, start in this column with any adult household member.	If a RELATIVE of Person 1: ○ Husband/wife ○ Brother/sister ○ Natural-born or adopted son/daughter ○ Father/mother ○ Stepson/stepdaughter ○ Grandchild ○ Other relative → If NOT RELATED to Person 1: ○ Roomer, boarder, or foster child ○ Unmarried partner ○ Housemate, roommate ○ Other nonrelative
3. Sex Fill ONE circle for each person.	○ Male ○ Female	○ Male ○ Female
4. Race Fill ONE circle for the race that the person considers himself/herself to be. If **Indian (Amer.)**, print the name of the enrolled or principal tribe. → If **Other Asian or Pacific Islander (API)**, print one group, for example: Hmong, Fijian, Laotian, Thai, Tongan, Pakistani, Cambodian, and so on. → If **Other race**, print race. →	○ White ○ Black or Negro ○ Indian (Amer.) (Print the name of the enrolled or principal tribe.) → ○ Eskimo ○ Aleut Asian or Pacific Islander (API) ○ Chinese ○ Japanese ○ Filipino ○ Asian Indian ○ Hawaiian ○ Samoan ○ Korean ○ Guamanian ○ Vietnamese ○ Other API → ○ Other race (Print race) →	○ White ○ Black or Negro ○ Indian (Amer.) (Print the name of the enrolled or principal tribe.) → ○ Eskimo ○ Aleut Asian or Pacific Islander (API) ○ Chinese ○ Japanese ○ Filipino ○ Asian Indian ○ Hawaiian ○ Samoan ○ Korean ○ Guamanian ○ Vietnamese ○ Other API → ○ Other race (Print race) →
5. Age and year of birth a. Print each person's age at last birthday. Fill in the matching circle below each box. b. Print each person's year of birth and fill the matching circle below each box.	a. Age: 0 0 0 0 0 / 1 0 1 0 1 / 2 0 2 / 3 0 3 / 4 0 4 / 5 0 5 / 6 0 6 / 7 0 7 / 8 0 8 / 9 0 9 b. Year of birth: 1 / 1 ● 8 0 0 0 0 / 9 0 1 0 1 / 2 0 2 / 3 0 3 / 4 0 4 / 5 0 5 / 6 0 6 / 7 0 7 / 8 0 8 / 9 0 9	a. Age: 0 0 0 0 0 / 1 0 1 0 1 / 2 0 2 / 3 0 3 / 4 0 4 / 5 0 5 / 6 0 6 / 7 0 7 / 8 0 8 / 9 0 9 b. Year of birth: 1 / 1 ● 8 0 0 0 0 / 9 0 1 0 1 / 2 0 2 / 3 0 3 / 4 0 4 / 5 0 5 / 6 0 6 / 7 0 7 / 8 0 8 / 9 0 9
6. Marital status Fill ONE circle for each person.	○ Now married ○ Separated ○ Widowed ○ Never married ○ Divorced	○ Now married ○ Separated ○ Widowed ○ Never married ○ Divorced
7. Is this person of Spanish/Hispanic origin? Fill ONE circle for each person. If **Yes, other Spanish/Hispanic**, print one group. →	○ No (not Spanish/Hispanic) ○ Yes, Mexican, Mexican-Am., Chicano ○ Yes, Puerto Rican ○ Yes, Cuban ○ Yes, other Spanish/Hispanic (Print one group, for example: Argentinean, Colombian, Dominican, Nicaraguan, Salvadoran, Spaniard, and so on.) →	○ No (not Spanish/Hispanic) ○ Yes, Mexican, Mexican-Am., Chicano ○ Yes, Puerto Rican ○ Yes, Cuban ○ Yes, other Spanish/Hispanic (Print one group, for example: Argentinean, Colombian, Dominican, Nicaraguan, Salvadoran, Spaniard, and so on.) →
FOR CENSUS USE →	○ ○	○ ○

PERSON 7

Last name

First name — Middle initial

If a RELATIVE of Person 1:

- O Husband/wife
- O Natural-born or adopted son/daughter
- O Stepson/stepdaughter
- O Brother/sister
- O Father/mother
- O Grandchild
- O Other relative

If NOT RELATED to Person 1:

- O Roomer, boarder, or foster child
- O Housemate, roommate
- O Unmarried partner
- O Other nonrelative

- O Male
- O Female

- O White
- O Black or Negro
- O Indian (Amer.) (Print the name of the enrolled or principal tribe.)
- O Eskimo
- O Aleut

Asian or Pacific Islander (API)

- O Chinese
- O Filipino
- O Hawaiian
- O Korean
- O Vietnamese
- O Japanese
- O Asian Indian
- O Samoan
- O Guamanian
- O Other API

- O Other race (Print race)

a. Age — b. Year of birth

- O Now married
- O Widowed
- O Divorced
- O Separated
- O Never married

- O No (not Spanish/Hispanic)
- O Yes, Mexican, Mexican-Am., Chicano
- O Yes, Puerto Rican
- O Yes, Cuban
- O Yes, other Spanish/Hispanic (Print one group, for example: Argentinean, Colombian, Dominican, Nicaraguan, Salvadoran, Spaniard, and so on.)

NOW PLEASE ANSWER QUESTIONS H1a—H26 FOR THIS HOUSEHOLD

H1a. Did you leave anyone out of your list of persons for Question 1a on page 1 because you were not sure if the person should be listed — for example, someone temporarily away on a business trip or vacation, a newborn baby still in the hospital, or a person who stays here once in a while and has no other home?

O Yes, please print the name(s) and reason(s). O No

b. Did you include anyone in your list of persons for Question 1a on page 1 even though you were not sure that the person should be listed — for example, a visitor who is staying here temporarily or a person who usually lives somewhere else?

O Yes, please print the name(s) and reason(s). O No

H2. Which best describes this building? Include all apartments, flats, etc., even if vacant.

- O A mobile home or trailer
- O A one-family house detached from any other house
- O A one-family house attached to one or more houses
- O A building with 2 apartments
- O A building with 3 or 4 apartments
- O A building with 5 to 9 apartments
- O A building with 10 to 19 apartments
- O A building with 20 to 49 apartments
- O A building with 50 or more apartments
- O Other

H3. How many rooms do you have in this house or apartment? Do NOT count bathrooms, porches, balconies, foyers, halls, or half-rooms.

- O 1 room
- O 2 rooms
- O 3 rooms
- O 4 rooms
- O 5 rooms
- O 6 rooms
- O 7 rooms
- O 8 rooms
- O 9 or more rooms

H4. Is this house or apartment —

- O Owned by you or someone in this household with a mortgage or loan?
- O Owned by you or someone in this household free and clear (without a mortgage)?
- O Rented for cash rent?
- O Occupied without payment of cash rent?

If this is a ONE-FAMILY HOUSE —

H5a. Is this house on ten or more acres?

O Yes O No

b. Is there a business (such as a store or barber shop) or a medical office on this property?

O Yes O No

Answer only if you or someone in this household OWNS OR IS BUYING this house or apartment —

H6. What is the value of this property; that is, how much do you think this house and lot or condominium unit would sell for if it were for sale?

- O Less than $10,000
- O $10,000 to $14,999
- O $15,000 to $19,999
- O $20,000 to $24,999
- O $25,000 to $29,999
- O $30,000 to $34,999
- O $35,000 to $39,999
- O $40,000 to $44,999
- O $45,000 to $49,999
- O $50,000 to $54,999
- O $55,000 to $59,999
- O $60,000 to $64,999
- O $65,000 to $69,999
- O $70,000 to $74,999
- O $75,000 to $79,999
- O $80,000 to $89,999
- O $90,000 to $99,999
- O $100,000 to $124,999
- O $125,000 to $149,999
- O $150,000 to $174,999
- O $175,000 to $199,999
- O $200,000 to $249,999
- O $250,000 to $299,999
- O $300,000 to $399,999
- O $400,000 to $499,999
- O $500,000 or more

Answer only if you PAY RENT for this house or apartment —

H7a. What is the monthly rent?

- O Less than $80
- O $80 to $99
- O $100 to $124
- O $125 to $149
- O $150 to $174
- O $175 to $199
- O $200 to $224
- O $225 to $249
- O $250 to $274
- O $275 to $299
- O $300 to $324
- O $325 to $349
- O $350 to $374
- O $375 to $399
- O $400 to $424
- O $425 to $449
- O $450 to $474
- O $475 to $499
- O $500 to $524
- O $525 to $549
- O $550 to $599
- O $600 to $649
- O $650 to $699
- O $700 to $749
- O $750 to $999
- O $1,000 or more

b. Does the monthly rent include any meals?

O Yes O No

FOR CENSUS USE

A. Total persons

B. Type of unit

Occupied: O First form O Cont'n

Vacant: O Regular O Usual home elsewhere

C1. Vacancy status

- O For rent
- O For sale only
- O Rented or sold, not occupied
- O For seas/rec/occ
- O For migrant workers
- O Other vacant

C2. Is this unit boarded up?

O Yes O No

D. Months vacant

- O Less than 1
- O 1 up to 2
- O 2 up to 6
- O 6 up to 12
- O 12 up to 24
- O 24 or more

E. Complete after

O LR O TC O QA O JIC 1
O P/F O RE O I/T
O MV O ED O EN

O P0 O P3 O P6
O P1 O P4 O IA O JIC 2
O P2 O P5 O SM

F. Cov.

O 1b O 1a O 7 O H1

G. DO ID

PLEASE ALSO ANSWER THESE

H8. When did the person listed in column 1 on page 2 move into this house or apartment?

- O 1989 or 1990
- O 1985 to 1988
- O 1980 to 1984
- O 1970 to 1979
- O 1960 to 1969
- O 1959 or earlier

H9. How many bedrooms do you have; that is, how many bedrooms would you list if this house or apartment were on the market for sale or rent?

- O No bedroom
- O 1 bedroom
- O 2 bedrooms
- O 3 bedrooms
- O 4 bedrooms
- O 5 or more bedrooms

H10. Do you have COMPLETE plumbing facilities in this house or apartment; that is, 1) hot and cold piped water, 2) a flush toilet, and 3) a bathtub or shower?

- O Yes, have all three facilities
- O No

H11. Do you have COMPLETE kitchen facilities; that is, 1) a sink with piped water, 2) a range or cookstove, and 3) a refrigerator?

- O Yes
- O No

H12. Do you have a telephone in this house or apartment?

- O Yes
- O No

H13. How many automobiles, vans, and trucks of one-ton capacity or less are kept at home for use by members of your household?

- O None
- O 1
- O 2
- O 3
- O 4
- O 5
- O 6
- O 7 or more

H14. Which FUEL is used MOST for heating this house or apartment?

- O Gas: from underground pipes serving the neighborhood
- O Gas: bottled, tank, or LP
- O Electricity
- O Fuel oil, kerosene, etc.
- O Coal or coke
- O Wood
- O Solar energy
- O Other fuel
- O No fuel used

H15. Do you get water from —

- O A public system such as a city water department, or private company?
- O An individual drilled well?
- O An individual dug well?
- O Some other source such as a spring, creek, river, cistern, etc.?

H16. Is this building connected to a public sewer?

- O Yes, connected to public sewer
- O No, connected to septic tank or cesspool
- O No, use other means

H17. About when was this building first built?

- O 1989 or 1990
- O 1985 to 1988
- O 1980 to 1984
- O 1970 to 1979
- O 1960 to 1969
- O 1950 to 1959
- O 1940 to 1949
- O 1939 or earlier
- O Don't know

H18. Is this house or apartment part of a condominium?

- O Yes
- O No

If you live in an apartment building, skip to H20.

H19a. Is this house on less than 1 acre?

- O Yes — *Skip to H20*
- O No

b. In 1989, what were the actual sales of all agricultural products from this property?

- O None
- O $1 to $999
- O $1,000 to $2,499
- O $2,500 to $4,999
- O $5,000 to $9,999
- O $10,000 or more

H20. What are the yearly costs of utilities and fuels for this house or apartment?
If you have lived here less than 1 year, estimate the yearly cost.

a. Electricity

$ .00
Yearly cost — Dollars

OR

- O Included in rent or in condominium fee
- O No charge or electricity not used

b. Gas

$ .00
Yearly cost — Dollars

OR

- O Included in rent or in condominium fee
- O No charge or gas not used

c. Water

$ .00
Yearly cost — Dollars

OR

- O Included in rent or in condominium fee
- O No charge

d. Oil, coal, kerosene, wood, etc.

$ .00
Yearly cost — Dollars

OR

- O Included in rent or in condominium fee
- O No charge or these fuels not used

INSTRUCTION:

Answer questions H21 TO H26, if this is a one-family house, a condominium, or a mobile home that someone in this household OWNS OR IS BUYING; otherwise, go to page 6.

H21. What were the real estate taxes on THIS property last year?

$ .00
Yearly amount — Dollars

OR

O None

H22. What was the annual payment for fire, hazard, and flood insurance on THIS property?

$ .00
Yearly amount — Dollars

OR

O None

H23a. Do you have a mortgage, deed of trust, contract to purchase, or similar debt on THIS property?

O Yes, mortgage, deed of trust, or similar debt
O Yes, contract to purchase
} *Go to H23b*
O No — *Skip to H24a*

b. How much is your regular monthly mortgage payment on THIS property? Include payment only on first mortgage or contract to purchase.

$ .00
Monthly amount — Dollars

OR

O No regular payment required — *Skip to H24a*

c. Does your regular monthly mortgage payment include payments for real estate taxes on THIS property?

O Yes, taxes included in payment
O No, taxes paid separately or taxes not required

d. Does your regular monthly mortgage payment include payments for fire, hazard, or flood insurance on THIS property?

O Yes, insurance included in payment
O No, insurance paid separately or no insurance

H24a. Do you have a second or junior mortgage or a home equity loan on THIS property?

O Yes
O No — *Skip to H25*

b. How much is your regular monthly payment on all second or junior mortgages and all home equity loans?

$ .00
Monthly amount — Dollars

OR

O No regular payment required

Answer ONLY if this is a CONDOMINIUM —

H25. What is the monthly condominium fee?

$ .00
Monthly amount — Dollars

Answer ONLY if this is a MOBILE HOME —

H26. What was the total cost for personal property taxes, site rent, registration fees, and license fees on this mobile home and its site last year? Exclude real estate taxes.

$ .00
Yearly amount — Dollars

Please turn to page 6.

PLEASE ANSWER THESE QUESTIONS

PERSON 1

Last name | First name | Middle initial

8. In what U.S. State or foreign country was this person born?

(Name of State or foreign country; or Puerto Rico, Guam, etc.)

9. Is this person a CITIZEN of the United States?

- O Yes, born in the United States — *Skip to 11*
- O Yes, born in Puerto Rico, Guam, the U.S. Virgin Islands, or Northern Marianas
- O Yes, born abroad of American parent or parents
- O Yes, U.S. citizen by naturalization
- O No, not a citizen of the United States

10. When did this person come to the United States to stay?

- O 1987 to 1990
- O 1985 or 1986
- O 1982 to 1984
- O 1980 or 1981
- O 1975 to 1979
- O 1970 to 1974
- O 1965 to 1969
- O 1960 to 1964
- O 1950 to 1959
- O Before 1950

11. At any time since February 1, 1990, has this person attended regular school or college?
Include only nursery school, kindergarten, elementary school, and schooling which leads to a high school diploma or a college degree.

- O No, has not attended since February 1
- O Yes, public school, public college
- O Yes, private school, private college

12. How much school has this person COMPLETED?
Fill ONE circle for the highest level COMPLETED or degree RECEIVED. If currently enrolled, mark the level of previous grade attended or highest degree received.

- O No school completed
- O Nursery school
- O Kindergarten
- O 1st, 2nd, 3rd, or 4th grade
- O 5th, 6th, 7th, or 8th grade
- O 9th grade
- O 10th grade
- O 11th grade
- O 12th grade, NO DIPLOMA
- O HIGH SCHOOL GRADUATE - high school DIPLOMA or the equivalent (For example: GED)
- O Some college but no degree
- O Associate degree in college - Occupational program
- O Associate degree in college - Academic program
- O Bachelor's degree (For example: BA, AB, BS)
- O Master's degree (For example: MA, MS, MEng, MEd, MSW, MBA)
- O Professional school degree (For example: MD, DDS, DVM, LLB, JD)
- O Doctorate degree (For example: PhD, EdD)

13. What is this person's ancestry or ethnic origin?
(See instruction guide for further information.)

(For example: German, Italian, Afro-Amer., Croatian, Cape Verdean, Dominican, Ecuadoran, Haitian, Cajun, French Canadian, Jamaican, Korean, Lebanese, Mexican, Nigerian, Irish, Polish, Slovak, Taiwanese, Thai, Ukrainian, etc.)

14a. Did this person live in this house or apartment 5 years ago (on April 1, 1985)?

- O Born after April 1, 1985 — *Go to questions for the next person*
- O Yes — *Skip to 15a*
- O No

b. Where did this person live 5 years ago (on April 1, 1985)?

(1) Name of U.S. State or foreign country

(If outside U.S., print answer above and skip to 15a.)

(2) Name of county in the U.S.

(3) Name of city or town in the U.S.

(4) Did this person live inside the city or town limits?

- O Yes
- O No, lived outside the city/town limits

15a. Does this person speak a language other than English at home?

- O Yes
- O No — *Skip to 16*

b. What is this language?

(For example: Chinese, Italian, Spanish, Vietnamese)

c. How well does this person speak English?

- O Very well
- O Well
- O Not well
- O Not at all

16. When was this person born?

- O Born before April 1, 1975 — *Go to 17a*
- O Born April 1, 1975 or later — *Go to questions for the next person*

17a. Has this person ever been on active-duty military service in the Armed Forces of the United States or ever been in the United States military Reserves or the National Guard? If service was in Reserves or National Guard only, see instruction guide.

- O Yes, now on active duty
- O Yes, on active duty in past, but not now
- O Yes, service in Reserves or National Guard only — *Skip to 18*
- O No — *Skip to 18*

b. Was active-duty military service during —
Fill a circle for each period in which this person served.

- O September 1980 or later
- O May 1975 to August 1980
- O Vietnam era (August 1964—April 1975)
- O February 1955—July 1964
- O Korean conflict (June 1950—January 1955)
- O World War II (September 1940—July 1947)
- O World War I (April 1917—November 1918)
- O Any other time

c. In total, how many years of active-duty military service has this person had?

Years

18. Does this person have a physical, mental, or other health condition that has lasted for 6 or more months and which —

a. Limits the kind or amount of work this person can do at a job?

O Yes O No

b. Prevents this person from working at a job?

O Yes O No

19. Because of a health condition that has lasted for 6 or more months, does this person have any difficulty —

a. Going outside the home alone, for example, to shop or visit a doctor's office?

O Yes O No

b. Taking care of his or her own personal needs, such as bathing, dressing, or getting around inside the home?

O Yes O No

If this person is a female —

20. How many babies has she ever had, not counting stillbirths? Do not count her stepchildren or children she has adopted.

None 1 2 3 4 5 6 7 8 9 10 11 12 or more

O O O O O O O O O O O O O

21a. Did this person work at any time LAST WEEK?

- O Yes — Fill this circle if this person worked full time or part time. (Count part-time work such as delivering papers, or helping without pay in a family business or farm. Also count active duty in the Armed Forces.)
- O No — Fill this circle if this person did not work, or did only own housework, school work, or volunteer work. — *Skip to 25*

b. How many hours did this person work LAST WEEK (at all jobs)? Subtract any time off; add overtime or extra hours worked.

Hours

22. At what location did this person work LAST WEEK?
If this person worked at more than one location, print where he or she worked most last week.

a. Address (Number and street)

(If the exact address is not known, give a description of the location such as the building name or the nearest street or intersection.)

b. Name of city, town, or post office

c. Is the work location inside the limits of that city or town?

- O Yes
- O No, outside the city/town limits

d. County

e. State **f. ZIP Code**

23a. How did this person usually get to work LAST WEEK? If this person usually used more than one method of transportation during the trip, fill the circle of the one used for most of the distance.

- O Car, truck, or van
- O Bus or trolley bus
- O Streetcar or trolley car
- O Subway or elevated
- O Railroad
- O Ferryboat
- O Taxicab
- O Motorcycle
- O Bicycle
- O Walked
- O Worked at home — *Skip to 28*
- O Other method

If "car, truck, or van" is marked in 23a, go to 23b. Otherwise, skip to 24a.

b. How many people, including this person, usually rode to work in the car, truck, or van LAST WEEK?

- O Drove alone
- O 2 people
- O 3 people
- O 4 people
- O 5 people
- O 6 people
- O 7 to 9 people
- O 10 or more people

24a. What time did this person usually leave home to go to work LAST WEEK?

[ ] O a.m. O p.m.

b. How many minutes did it usually take this person to get from home to work LAST WEEK?

[ ] Minutes — *Skip to 28*

25. Was this person TEMPORARILY absent or on layoff from a job or business LAST WEEK?

- O Yes, on layoff
- O Yes, on vacation, temporary illness, labor dispute, etc.
- O No

26a. Has this person been looking for work during the last 4 weeks?

- O Yes
- O No — *Skip to 27*

b. Could this person have taken a job LAST WEEK if one had been offered?

- O No, already has a job
- O No, temporarily ill
- O No, other reasons (in school, etc.)
- O Yes, could have taken a job

27. When did this person last work, even for a few days?

- O 1990
- O 1989
- O 1988
- O 1985 to 1987
- O 1980 to 1984
- O 1979 or earlier
- O Never worked

Go to 28 / *Skip to 32*

28-30. CURRENT OR MOST RECENT JOB ACTIVITY. Describe clearly this person's chief job activity or business last week. If this person had more than one job, describe the one at which this person worked the most hours. If this person had no job or business last week, give information for his/her last job or business since 1985.

28. Industry or Employer

a. For whom did this person work? If now on active duty in the Armed Forces, fill this circle → O and print the branch of the Armed Forces.

[ ]
(Name of company, business, or other employer)

b. What kind of business or industry was this? Describe the activity at location where employed.

[ ]
(For example: hospital, newspaper publishing, mail order house, auto engine manufacturing, retail bakery)

c. Is this mainly — Fill ONE circle

- O Manufacturing
- O Wholesale trade
- O Retail trade
- O Other (agriculture, construction, service, government, etc.)

29. Occupation

a. What kind of work was this person doing?

[ ]
(For example: registered nurse, personnel manager, supervisor of order department, gasoline engine assembler, cake icer)

b. What were this person's most important activities or duties?

[ ]
(For example: patient care, directing hiring policies, supervising order clerks, assembling engines, icing cakes)

30. Was this person — Fill ONE circle

- O Employee of a PRIVATE FOR PROFIT company or business or of an individual, for wages, salary, or commissions
- O Employee of a PRIVATE NOT-FOR-PROFIT, tax-exempt, or charitable organization
- O Local GOVERNMENT employee (city, county, etc.)
- O State GOVERNMENT employee
- O Federal GOVERNMENT employee
- O SELF-EMPLOYED in own NOT INCORPORATED business, professional practice, or farm
- O SELF-EMPLOYED in own INCORPORATED business, professional practice, or farm
- O Working WITHOUT PAY in family business or farm

31a. Last year (1989), did this person work, even for a few days, at a paid job or in a business or farm?

- O Yes
- O No — *Skip to 32*

b. How many weeks did this person work in 1989? Count paid vacation, paid sick leave, and military service.

[ ] Weeks

c. During the weeks WORKED in 1989, how many hours did this person usually work each week?

[ ] Hours

32. INCOME IN 1989 — Fill the "Yes" circle below for each income source received during 1989. Otherwise, fill the "No" circle. If "Yes," enter the total amount received during 1989.

For income received jointly, see instruction guide. If exact amount is not known, please give best estimate.

If net income was a loss, write "Loss" above the dollar amount.

a. Wages, salary, commissions, bonuses, or tips from all jobs — Report amount before deductions for taxes, bonds, dues, or other items.

O Yes → [$ .00] Annual amount — Dollars
O No

b. Self-employment income from own nonfarm business, including proprietorship and partnership — Report NET income after business expenses.

O Yes → [$ .00] Annual amount — Dollars
O No

c. Farm self-employment income — Report NET income after operating expenses. Include earnings as a tenant farmer or sharecropper.

O Yes → [$ .00] Annual amount — Dollars
O No

d. Interest, dividends, net rental income or royalty income, or income from estates and trusts — Report even small amounts credited to an account.

O Yes → [$ .00] Annual amount — Dollars
O No

e. Social Security or Railroad Retirement

O Yes → [$ .00] Annual amount — Dollars
O No

f. Supplemental Security Income (SSI), Aid to Families with Dependent Children (AFDC), or other public assistance or public welfare payments.

O Yes → [$ .00] Annual amount — Dollars
O No

g. Retirement, survivor, or disability pensions — Do NOT include Social Security.

O Yes → [$ .00] Annual amount — Dollars
O No

h. Any other sources of income received regularly such as Veterans' (VA) payments, unemployment compensation, child support, or alimony — Do NOT include lump-sum payments such as money from an inheritance or the sale of a home.

O Yes → [$ .00] Annual amount — Dollars
O No

33. What was this person's total income in 1989? Add entries in questions 32a through 32h; subtract any losses. If total amount was a loss, write "Loss" above amount.

O None OR [$ .00] Annual amount — Dollars

Please turn the page and answer questions for Person 2 listed on page 1. If this is the last person listed in question 1a on page 1, go to the back of the form.